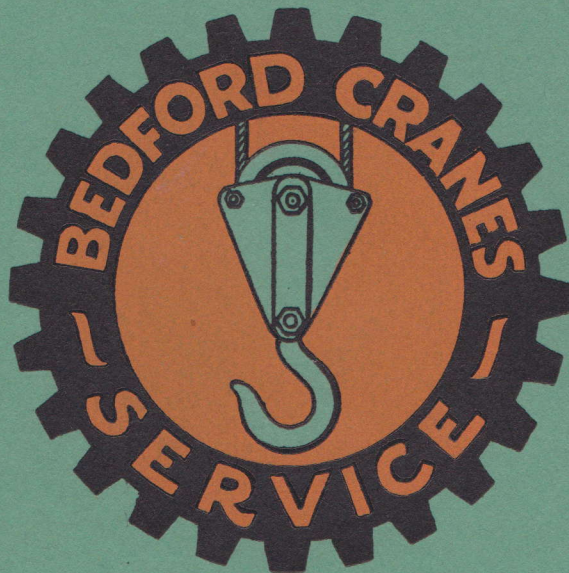


# BEDFORD

## STONE WORKING MACHINERY




**Bedford Foundry &  
Machine Company**  
INCORPORATED  
**B e d f o r d ,      I n d i a n a**



# BEDFORD STONE WORKING MACHINERY

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Planers, Gang Saws, Diamond  
Saws, Electric Cranes, Channelers,  
Power Hoists, Steel Derricks, Steel  
Buildings, Steel Tramways,



*ALL KINDS OF QUARRY AND  
MILL EQUIPMENT*

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BEDFORD FOUNDRY & MACHINE CO.

*Incorporated*

MAIN OFFICE and WORKS, BEDFORD, INDIANA

# FOREWORD

OUR plant being located in the heart of the Indiana Limestone District, and with our many years of practical experience, together with ideas derived from the stone men who operate stone-working machinery, we can confidently offer the machines herein illustrated and described as the best yet produced. It is impossible within the limits of this catalogue to describe all the stone-working machinery we build, and therefore solicit correspondence from anyone not finding within these pages the machines that are exactly suited for their needs. The few succeeding pages, together with the following illustrations, show the different types and details of the improved machines we have recently originated and designed.

The heads of industries, whose problems call for rapid and efficient handling of volume, will be interested in the showing of BEDFORD STONE-WORKING MACHINERY as illustrated and described in this catalogue. The strongest endorsement of the products of the Bedford Foundry & Machine Company is their performances in the telling test of meeting satisfactorily the demands of everyday work.

The true mechanical principles of design, the high test materials employed, and the accurate machining and assembling of this machinery has been the guiding policy that has resulted in the rapid growth of our business from the modest foundry of 1902 to the completely equipped, modern plant of today. With present facilities and personnel, we are prepared to handle structural steel work, including steel buildings, steel runways and steel tanks—in fact, anything in the structural steel line. We can also take care of all kinds of gray iron castings up to twelve tons, and our Machinery Department is equipped for handling all kinds of machine work. Nothing too large or too small. We have at all times a capable engineering staff, who will be pleased to cooperate with you or give you the benefit of their experience in designing new buildings or intricate machinery.

Our mechanical facilities and staff of designers and construction engineers place us in a particularly advantageous position to make it worth your while to have us figure with you on your requirements.

# Bedford Improved Worm-Driven Planer

**T**HE Bedford Improved Self-Contained Openside Stone Planer is built simple in design as well as accessible, these machines having a planing capacity of 3' 6" wide by 3' 6" high, and can be built with platen to stake down stone 12', 14' and 16' long. They can be arranged for motor drive or belt drive, and are geared to have a planing speed of 35' per minute and backing-out speed of 70' per minute.

While the Bedford Improved Stone Planers are built in several types to meet various requirements, the following description of material and method employed in the construction of the component parts and equipment will apply generally and serve as a guidance in the selection of machines of the type to meet your requirements.

**Gearing** All driving gears are turned and finished with the teeth cut from the solid, and are as silent running as metal gears can be made. The rack is made of high-grade cast iron, securely bolted to the platen, and teeth cut from the solid metal. The worm is of forged steel, 6 $\frac{3}{4}$ " in diameter, 12" long, accurately turned, and runs constantly in oil. Worm shaft is provided with ball bearing take-up to compensate for wear. This is located in a cast-iron box, which is cast in the pulley bracket and runs constantly in oil. Take-up is easily accessible and does not necessitate running platen off the shear to take up the wear.

**Bed** The bed is extra long and deep, with heavy sides, and thoroughly braced with wide cored ribs, placed at short intervals; has broad V's with side lock and automatic oilers.

**Platen** The platen is very heavy, of the double deck pattern, and strongly ribbed to secure ample stiffness. It is provided with numerous stake holds, and ways are accurately planed and fitted to bed.

**Posts** The posts are very heavy, of strong box pattern, with broad planed faces. The top is accurately planed for tie or top plate, and bases are planed and secured to bed with turned bolts.

**Cross Rail** Heavy pattern of great depth and of proper form to resist the strains brought upon it when taking a heavy cut. It is accurately planed to meet face of post and is secured to same by dovetailed connection. Openside planers have an extra heavy brace extending from the outer end of cross rail to back of post, making cross rail positively rigid. Nuts are fitted to planed surfaces on back of cross rail and brace. Cross rails are arranged to raise and lower by power, and all sizes, except the Openside, are fitted with two tool heads.

**Tool Heads** One tool head is also furnished on each post. All side stocks are arranged to raise and lower by power. The tool heads are very strong, provided with double tool bars and steel set screws for holding as many tools as the machine is capable of driving. All sliding parts are accurately fitted with steel gibbs to take up the wear and also to lock when necessary. Feed screws driving tool stocks are of steel running in bronze nuts. Hand wheels have finished rims.

# Bedford Improved Worm-Driven Planer

(Continued)

**Driving Mechanism** Pulley brackets are made extra heavy and strong and well braced to avoid vibration. Pulleys are all large in diameter and loose pulleys are brushed with bronze. The reverse arrangement is so arranged that belts can be shifted from either side of the planer, or when set will reverse automatically. Trip dogs are provided with latches which can be lifted with the finger, permitting the platen to run out as far as desired for loading, etc. One overhead countershaft with pulleys and hangers is furnished with each machine. The overhead countershaft is self-supporting, is driven direct either by gear and rawhide pinion or by tight and loose pulleys for belt drive, thus eliminating timbers for supporting countershaft, which makes it considerably cheaper to install.

**Cross and Vertical Tool Attachment** Through an arrangement of miter gears the feed screws on cross rail and side stock are arranged to drive by power for cross and vertical tooling. This is very simple and is controlled by two small handles placed convenient for the operator. This attachment is only furnished when so stated in the contract.

**Circular Planing Attachment** These attachments can be furnished in two sizes—small size, which will plane a radius from 2' 6" to 9' 0", and large attachment, which will plane a radius from 9' 0" to a straight line, as illustrated on Page 7.

The small attachment consists of a movable platen rotating from an adjustable fixed pin. Said pin can be adjusted to obtain any radius desired within said limits.

The large attachment consists of a movable platen (as illustrated on Page 7) upon the regular platen in such a manner that it is free to swing in either direction, turning upon a pivot pin at its center. This is operated by guide bar which is attached to the planer bed by brackets and may be placed either parallel to the motion of the machine or at any angle to this motion, allowing either a straight cut to be made or a convex or concave of any radius can be cut.

This arrangement is only furnished when so stated.

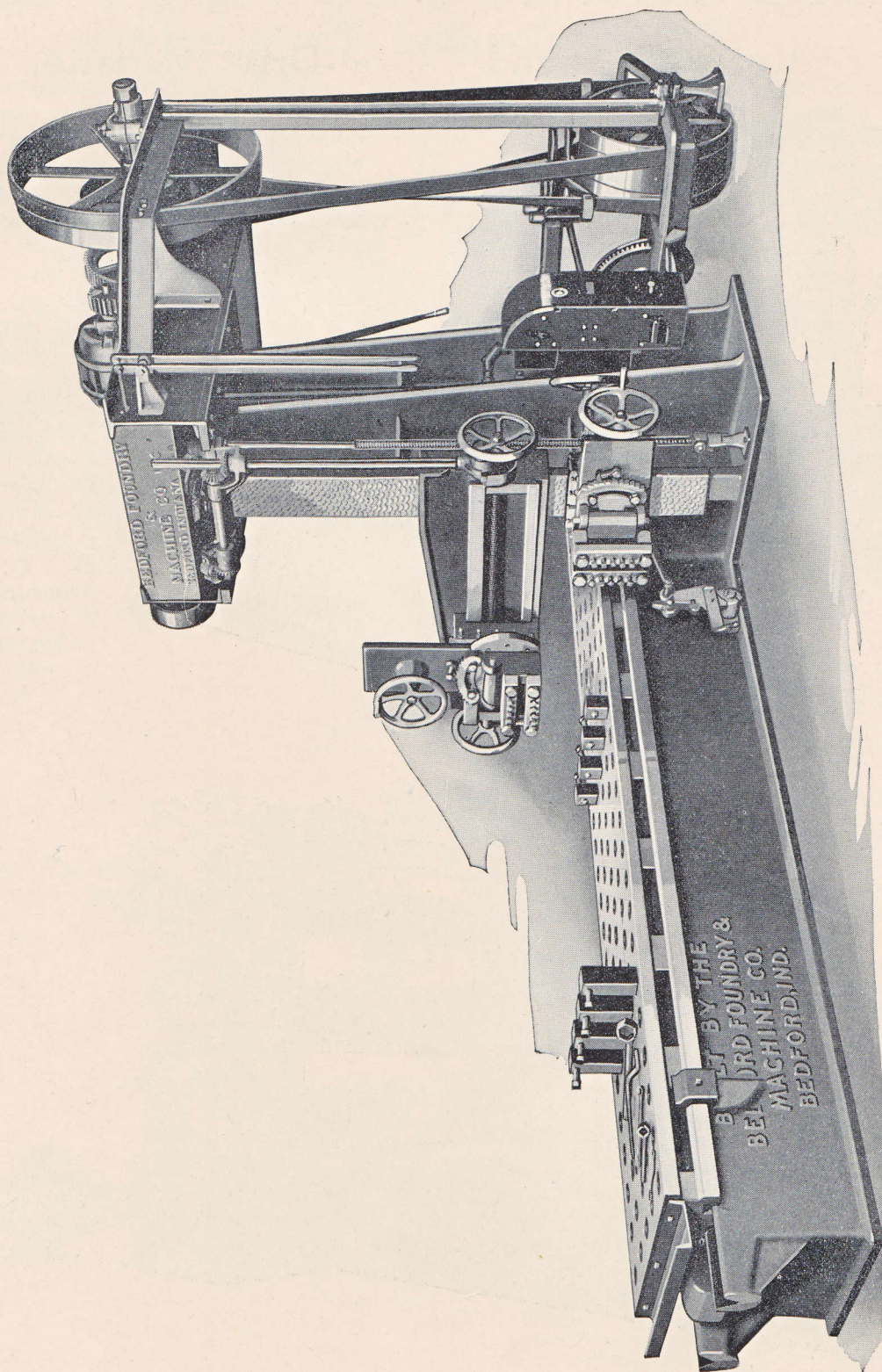
**Size** The Bedford Openside Planer can be furnished in either right-hand or left-hand design. It is possible, by purchasing a right- and left-hand machine, to couple them together and obtain the same results as the large double housing planer shown, and at the same time each can be run, if desired, independently of each other and set in the foundations as close as 3" apart and any distance in width, giving an unlimited planing capacity in width.

**General** The general design and construction of this machine is of the latest improved type, the best and most suitable material being employed. The castings used are of high-grade iron, all neatly finished. The entire machine is neatly and serviceably painted. A thoroughly substantial and workmanlike machine, in strict accordance with our specifications, is guaranteed.

Drawings are furnished the purchaser for foundation and erection, when requested, free of charge.



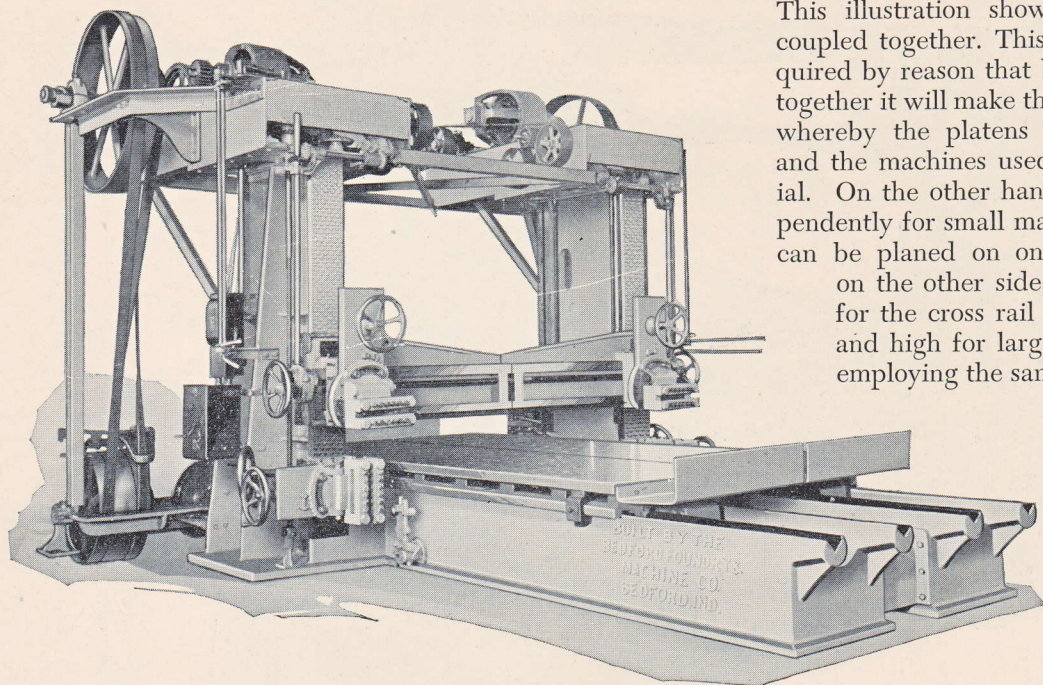
## Bedford Openside Stone Planer



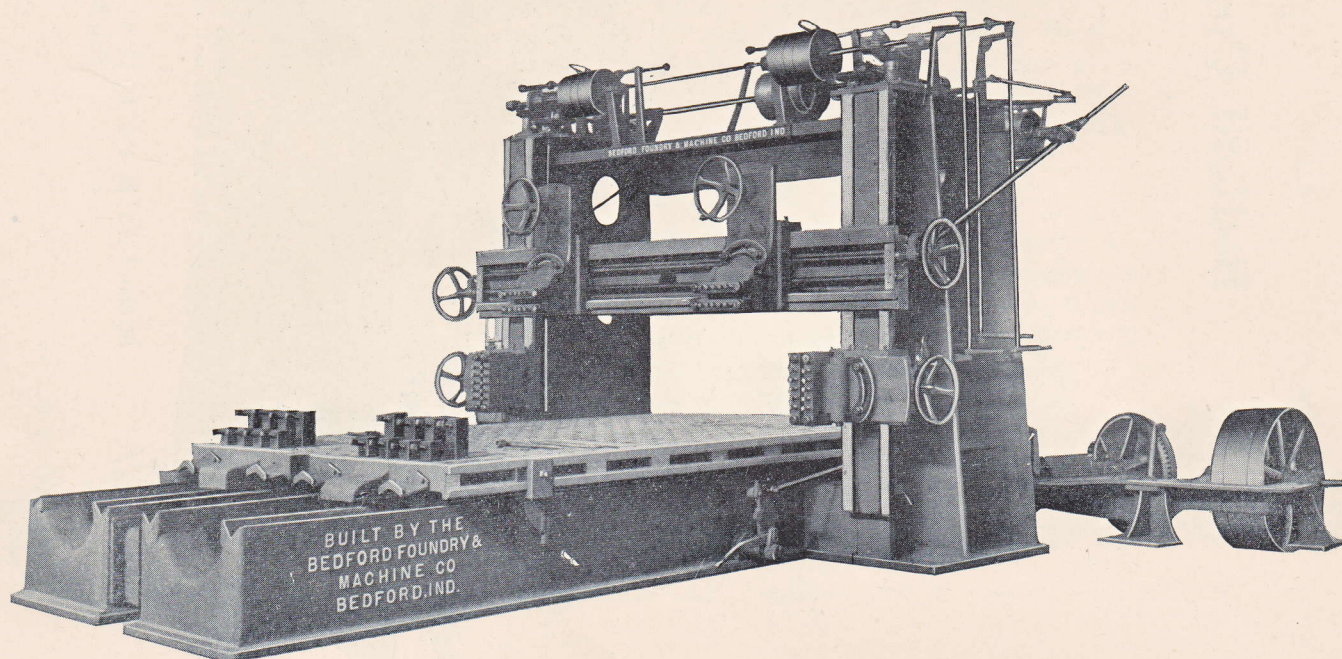
Standard 3' 6" by 3' 6" by 12' 0" Openside Self-Contained Worm-Driven Planer with Self-Supporting Countershaft.

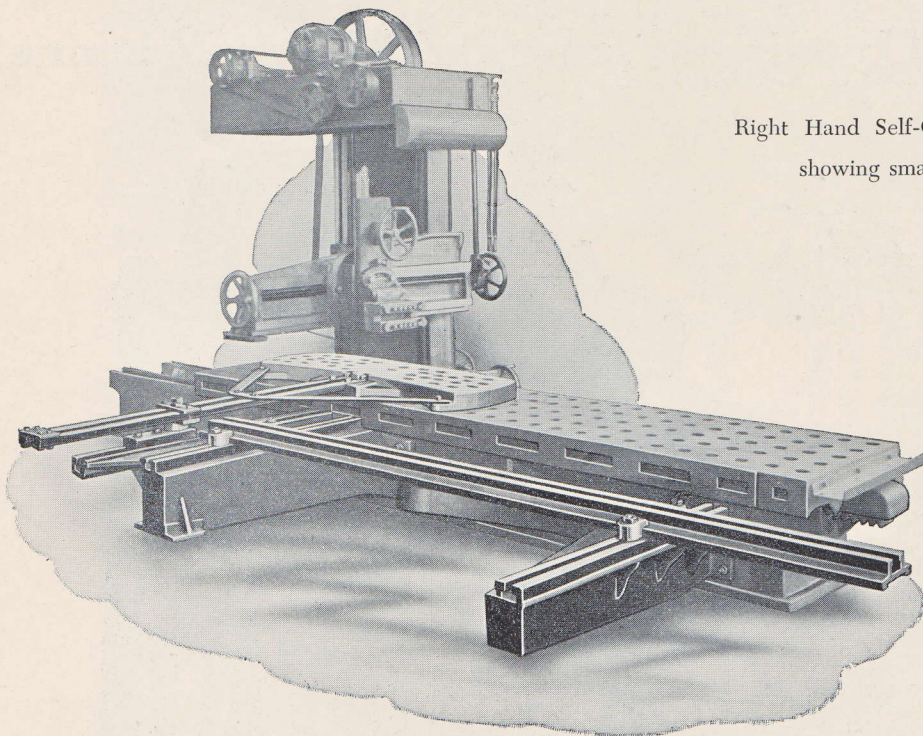


## One R. H. and One L. H. 3' 6" x 3' 6" x 14' 0" Openside Planer Coupled Together



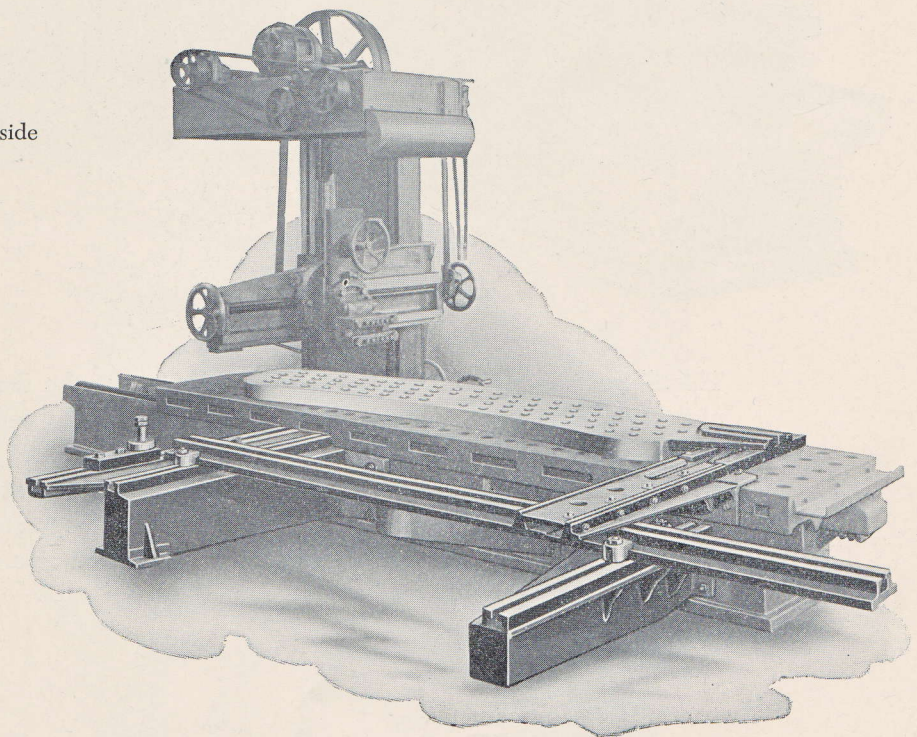
This illustration shows two Openside Planers coupled together. This arrangement is often required by reason that by coupling two machines together it will make the so-called Double Planer, whereby the platens can be coupled together and the machines used for planing wide material. On the other hand, they can be used independently for small material where a small stone can be planed on one side and a high stone on the other side, which makes it possible for the cross rail to be low for small stone and high for large stone, at the same time employing the same rigidity when used as a Double Planer. These machines are built with the so-called self-contained idea, with self-supporting countershaft, thus eliminating timbers for supporting the countershaft, which makes it considerably cheaper to install.





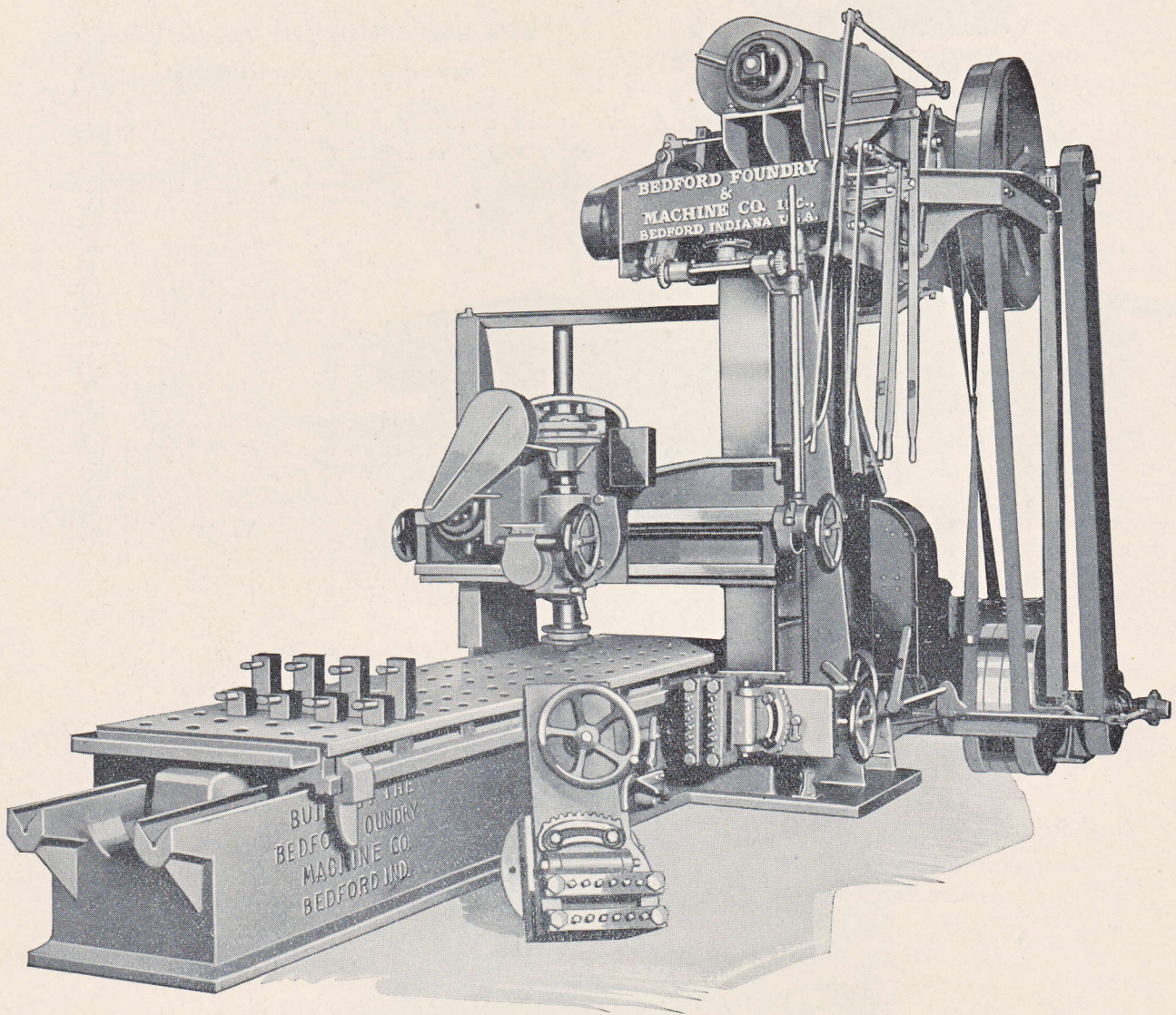
Right Hand Self-Contained Openside Planer,  
showing small circular attachment.

Right Hand Self-Contained Openside  
Planer, showing large circular  
attachment.

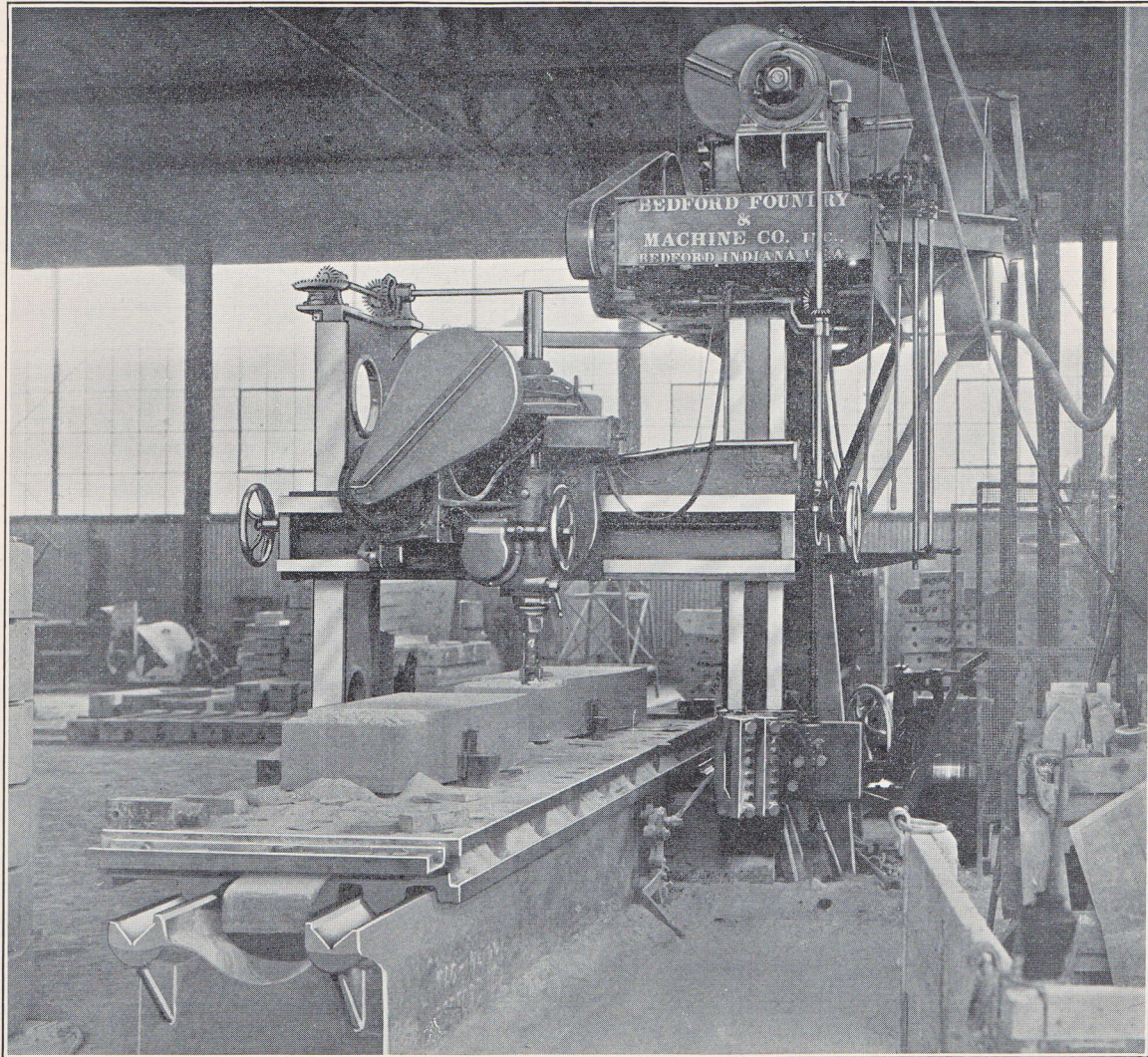




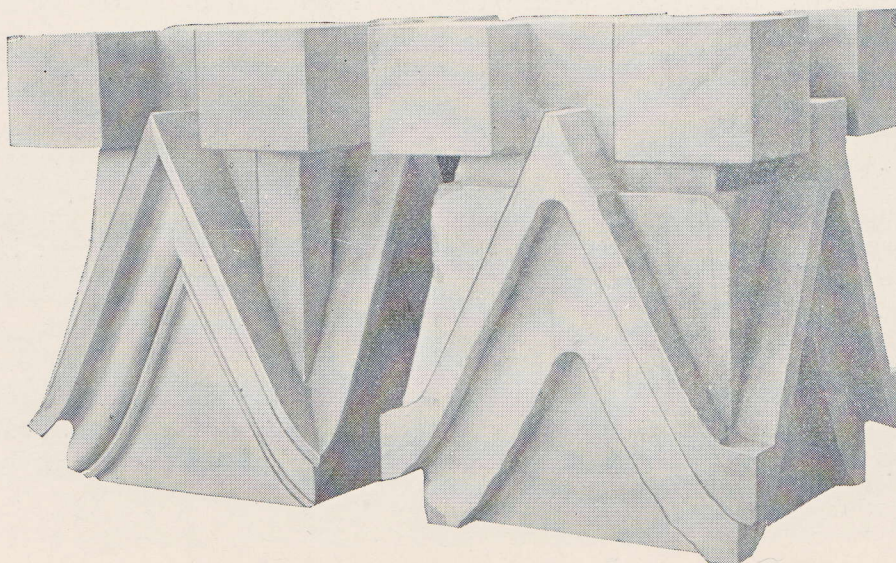
## Combination Self-Contained Planer and Milling Machine



This illustration shows a machine designed to meet the demands of cut stone plants which frequently have Milling Machine work to do, and is so arranged that it can be changed from Milling Machine to Planer in a very few minutes. It has all the features of a Milling Machine without interference when used as a Standard Stone Planer. Each operation is driven with separate motor, having two speeds on cross rail and also on bed when operated as a Milling Machine.



Installation view of Self-Contained Openside Planer with Milling Attachment, furnished the Carl Furst Company, Bedford, Indiana.



Base of Finial with Rough for Carved Crockets.



## Specifications for One Bedford Improved New Style Stone Milling Machine

**T**HIS machine is capable of taking a block of stone 10' long by 48' wide by 24" high and has a platen of 35" wide by 11'. The bed and cutting head are arranged for quick return, in addition to the variable speed on cutting head and bed, which also has an arrangement for hand adjustment, which makes it convenient for spotting and cutting to line. Cross rail has power raising and lowering so as to take different sizes of stone.

**Tool Head** The tool head is on the cross rail and arranged to swivel and also raise and lower with a worm, with an adjustment of 8" without raising cross rail. This head is provided with extra large spindle driven through by bevel gears, which are directly connected with silent chain Link Belt to a 5 h. p. two-speed motor. There is also furnished one gear for changing speed on tool head, which will give four speeds, namely, fast speed for light work and slow speed for heavy work.

**Gearing** All driving gears are turned and finished and teeth cut from the solid, and are as silent running as metal gears can be made.

**Bed** Bed is extra long and deep, thoroughly braced with wide ribs placed at short intervals, having broad V's with extra width, and the distance between the track V's is such that there is no possibility of the table tilting. Each V is fitted with automatic oil-rolling device which assures thorough lubrication.

**Platen** The platen is extra heavy, of unusual thickness, and braced at short intervals with heavy ribs to guard against any possibility of springing. Platen is accurately fitted to the bed and provided with holes to receive stakes for securing the work.

**Uprights** There are two uprights approximately 4' 2" between, very heavy and strong box pattern with broad plain faces, the top accurately planed for the top plate, and the base planed and secured to the bed with turn bolts.

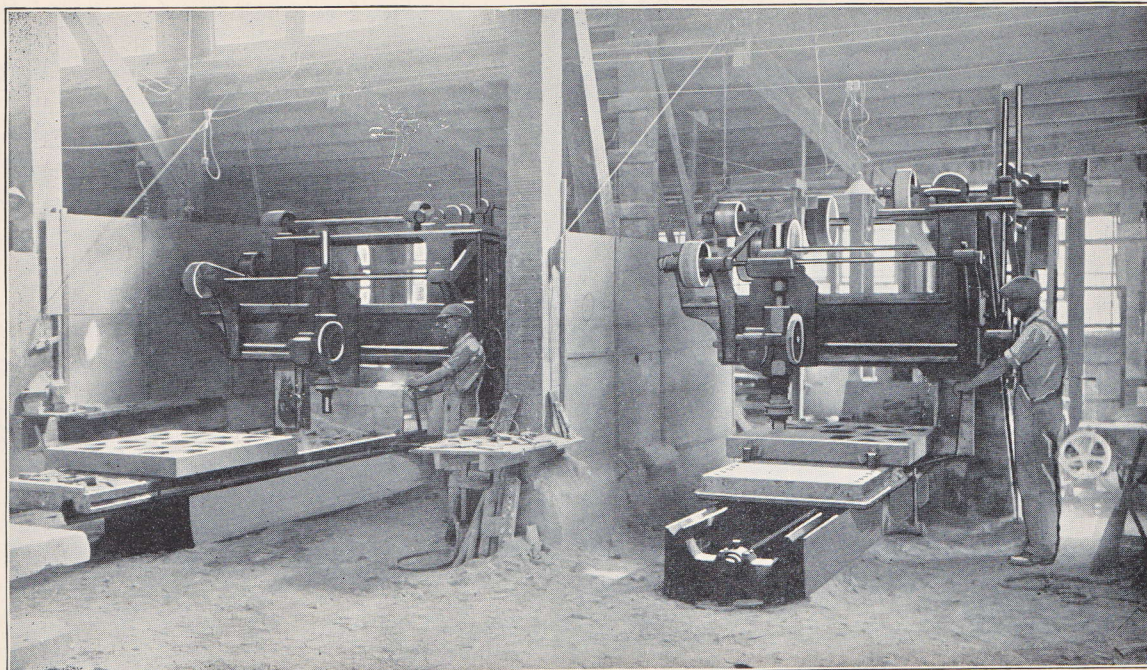
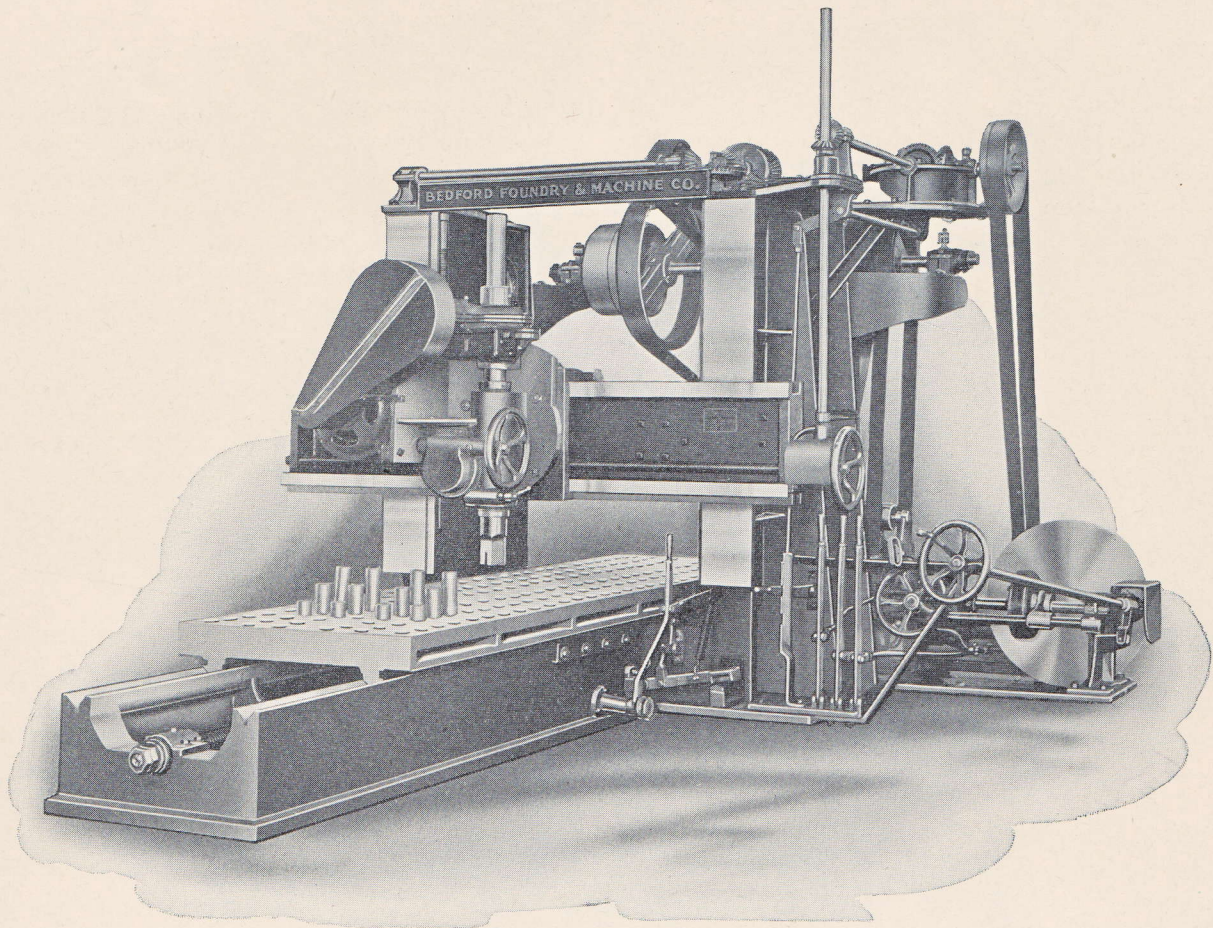
**Cross Rails** The cross rail is of heavy pattern of great depth and of proper form to resist strain brought upon it when taking a heavy cut. It is accurately planed to meet the face of the uprights. Cross rail is also arranged for raising and lowering by power.

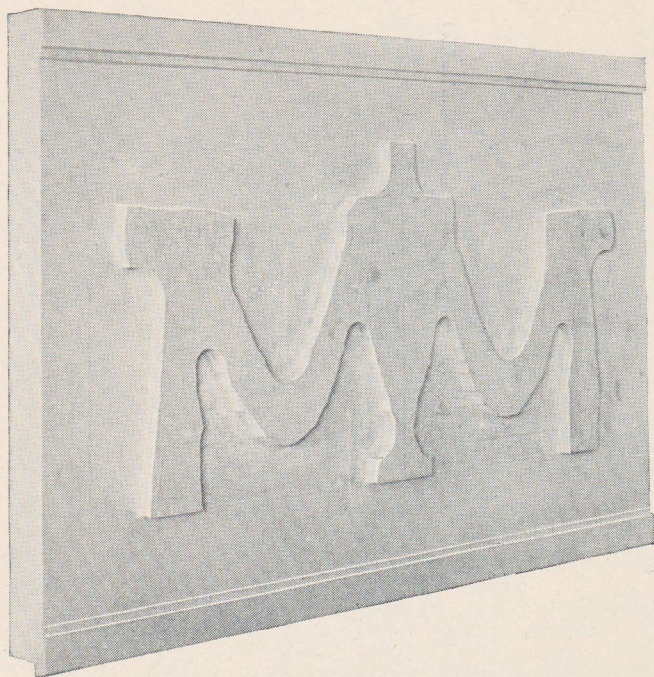
**Driving Mechanism** The driving mechanism is composed of pulley bracket shifting arrangement, together with variable speed friction transmission, extra heavy and strong and well braced to avoid vibration. Pulleys are large in diameter, and the loose pulley is bushed with bronze. One overhead counter-shaft with pulleys and hangers is furnished with each machine, and a 15 h. p. motor is required for the drive, which is to be furnished by the purchaser.

**General** General design and construction of this machine is the latest improved type, and the best and most suitable materials are employed. The castings are high-grade iron, all neatly and serviceably painted. A thoroughly substantial and workmanlike machine, strictly in accordance with our specifications, will be furnished. Drawings will be furnished purchaser for foundation and erection, when requested, free of charge.

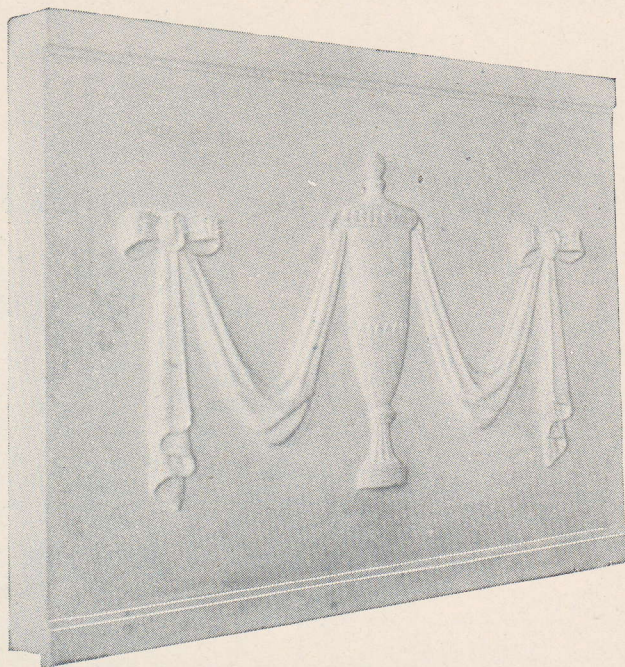


## Stone Milling Machine

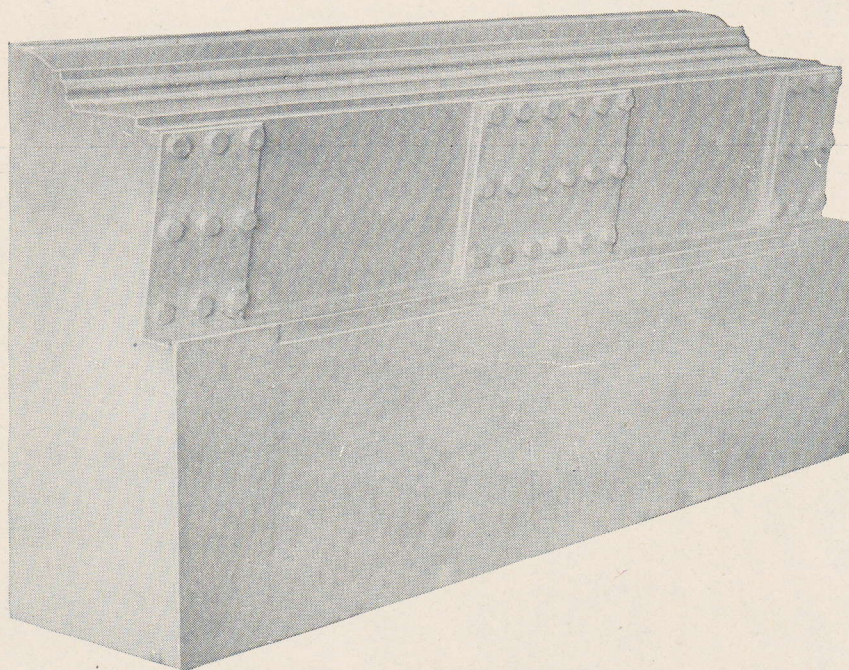




Carved Panel Roughed Over by Machine



Finished Panel



Doris Cornice with Mutule Attached.



## Bedford Improved Diamond and Carborundum Saws

**W**HILE the Bedford Improved Diamond and Carborundum Saws are built in several types they require, the following description of material and method employed in the construction of the component parts and equipment will apply generally and serve as a guidance in the selection of machine of the type to meet your requirements.

**Saw Frame** is composed of two cast iron columns which form the uprights, with heavy base of step to bolt to foundation, properly braced so as to be very rigid. Upon these uprights are mounted two I-beams, forming the track. The top of these beams are planed, forming proper alignment for the carriage. Beams are accurately fitted to shoes which fit around the upright columns, thus permitting the saw to be raised and lowered. The upright columns and shoes are turned true.

**Saw Carriage** is all made in one piece and is mounted on four truck wheels, double flange, which are accurately turned to run on these I-beams parallel. The carriage will be driven with a sufficient size motor (depending upon the size of the blade) which drives the saw mandrel through a silent chain arranged to give the proper speed. Mandrel will be of high-grade steel, ground true and fitted into S. K. F. ball bearings. Carriage straddles the I-beams or track and is driven from one end of mandrel with the saw on the other end. This absolutely balances the machine and does not have any overhang.

**Feed Mechanism** is driven with an ample size motor (depending on the size of the saw mentioned) and is mounted on end of saw frame, driven through a silent chain to feed, which is of the worm-gear type, and screw running in a bronze nut. Variable speed is arranged for the saw, ranging from  $4\frac{1}{2}$ " to 17" per minute cutting speed; pulling speed and backing-out speed 14' 9" per minute. Arrangements are also made to raise and lower the saw by power at 26" per minute.

**Trucks** Machine is provided with double trucks, each truck mounted on six wheels and three axles. Wheels are chilled and shrunk on the axles. Axles run on roller bearings and are supplied with ratchets and levers for moving the trucks on the track, and are also provided with foot locks which lock the trucks when saw is in operation. Truck frames are made entirely of steel, and top is provided with channels planed true so as to set stone square.

**Switchboard and Wiring** Angle iron frame is provided, suitable in size for mounting safety combination fuse and switch box and compensators for operating the two motors, and will furnish necessary connections ready to receive wires.

**General** Saw will be constructed in a high-grade manner throughout, the best and most suitable material being employed. All castings are of high-grade iron or steel, neatly finished, and the entire machine is neatly and serviceably painted, small parts, motor, etc., carefully boxed and crated for shipment.

Sizes and type of machines furnished built in Carborundum and Diamond Blades:

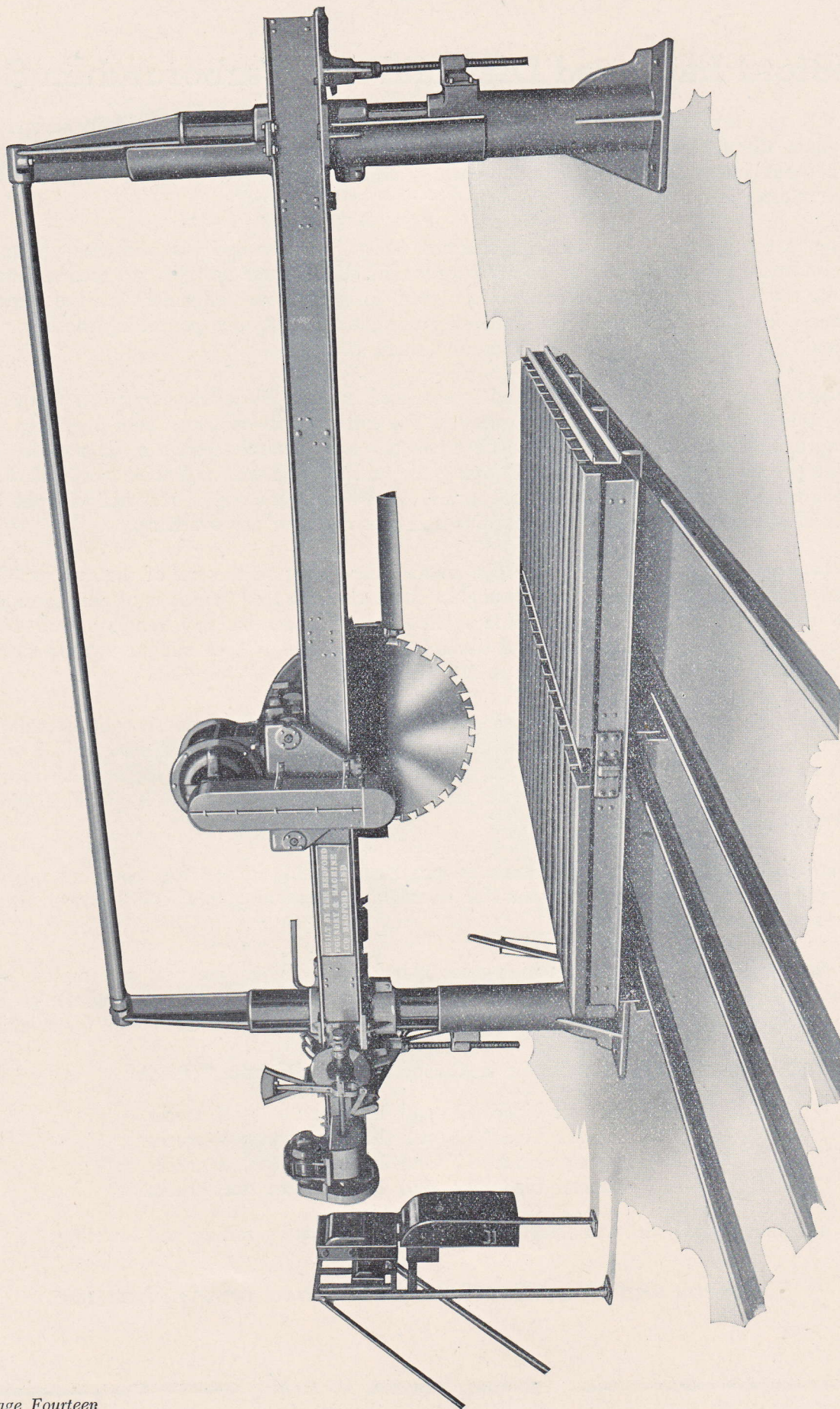
- 76" diameter blade, 12' and 14' rip, two steel trucks.
- 72" diameter blade, 12' and 14' rip, two steel trucks.
- 60" diameter blade, 12' and 14' rip, two steel trucks.
- 48" diameter blade, 12' and 14' rip, two steel trucks.

Saws can also be supplied with stationary iron legs, thus eliminating raising and lowering.

*Prices and Specifications Furnished on Application*



## Bedford Improved Diamond and Carborundum Saw



60" Carborundum Saw Frame, providing 12' rip.



## Specifications for Bedford 36" Diameter Diamond and Carborundum Saws

**T**HIS machine, as illustrated on Page 16, was designed to meet the demand of small cut-stone contractors for jointing and ripping. These machines can be arranged to take blades, either carborundum or diamond, up to 36" in diameter. Further can be furnished with either one truck or two, as desired, and saw frame is provided for a rip of 8' 0".

The following description of material and construction will generally apply:

**Saw Frame** Saw frame is composed of two cast-iron columns which form the uprights, with heavy base to bolt to the foundation, properly braced so as to be very rigid. Upon these uprights is mounted a cast-iron box section frame, forming the track. The top and bottom of this frame is planed, forming proper alignment for the carriage. This frame is also accurately planed to rest on the cast-iron shoes which fit around the upright columns, thus permitting the saw to raise and lower by hand wheel at one end of this frame. The upright columns and shoes are turned true and the frame is provided for an 8' rip.

**Carriage** Carriage is made in two pieces and mounted on this frame, which is accurately planed by slide gibs, planed true so as to run parallel. The carriage is provided with motor of sufficient size (depending upon size of blades) which drives the saw mandrel through a silent chain drive encased in oil-tight grease case, arranged to give proper speed. The mandrel will be of high-grade steel, ground true and fitted with S. K. F. ball bearings. Carriage straddles this cast-iron frame and is driven from one end of mandrel with saw on other end. This absolutely balances the machine and does not have any overhang.

**Feed Mechanism** The feed mechanism is driven with motor of sufficient size (depending upon size of the blade) mounted on end of saw frame, driven by belt for the feed, which is of the worm geared type with screw running in bronze nut. Variable speed is arranged for the saw, ranging from approximately 2¼" to 8½" per minute cutting speed, and pulling-to speed and backing-out speed 7' 4" per minute, depending on size of blade. Arrangement is also made to raise and lower this saw by hand.

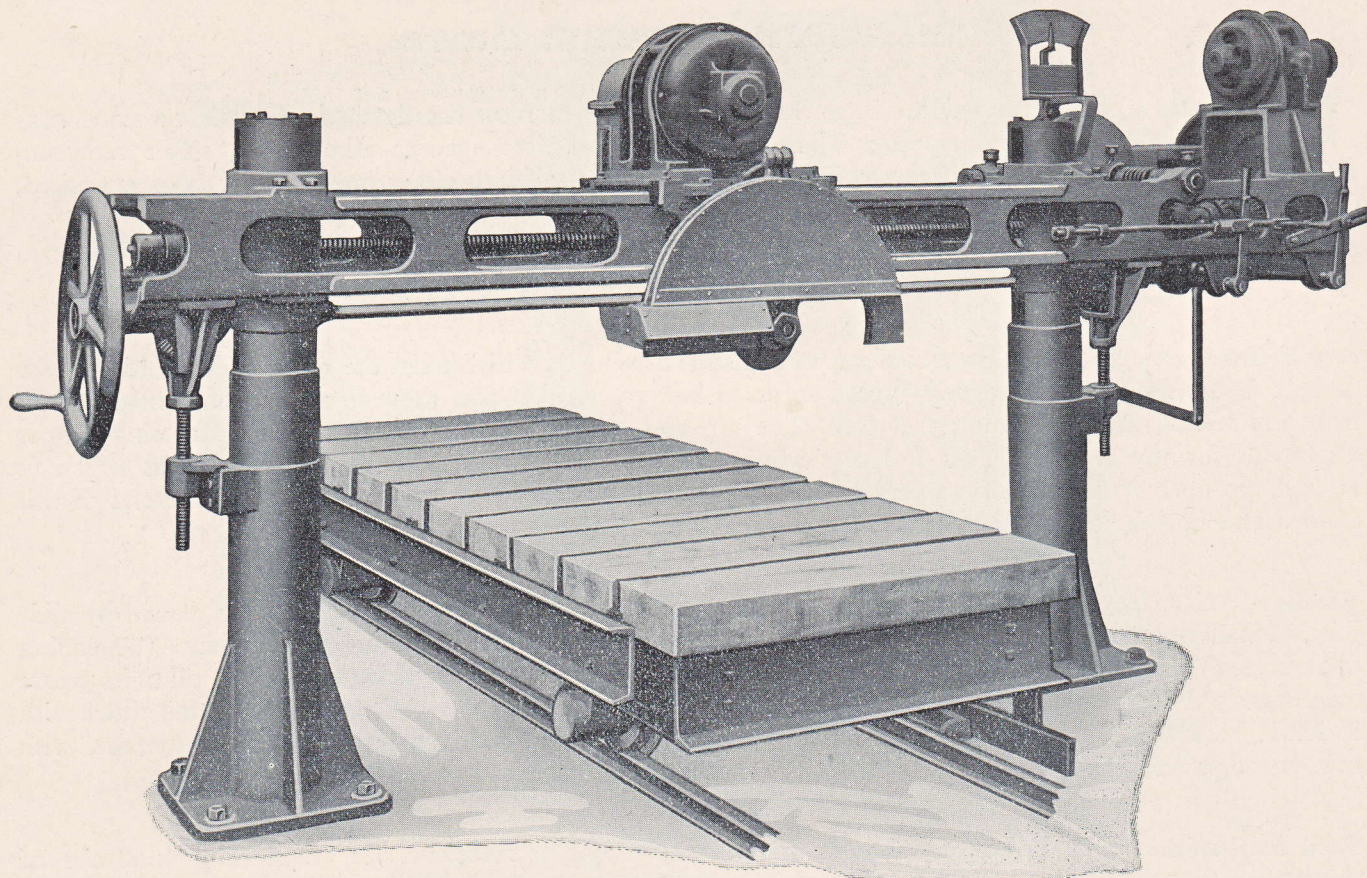
**Trucks** Machine is provided with a double truck; truck mounted on two axles and four wheels. Wheels are chilled and are shrunk on the axles. Axles run on roller bearings and are supplied with a ratchet and lever for moving the truck on the track, and is also provided with a foot lock which locks the truck when saw is in operation. Truck frame is made entirely of steel, top provided with 4" hard pine covering bolted to truck with countersunk bolts. Truck will also be provided with a guide channel planed true so as to set stone square, and the necessary rails will be furnished with the truck. Purchaser to furnish timbers under rails, which are a part of the foundation.

**Switchboard and Wiring** Angle iron frame is provided suitable in size for mounting safety combination fuse and switchbox and compensators for operating the two motors, and will furnish necessary connections ready to receive wires.

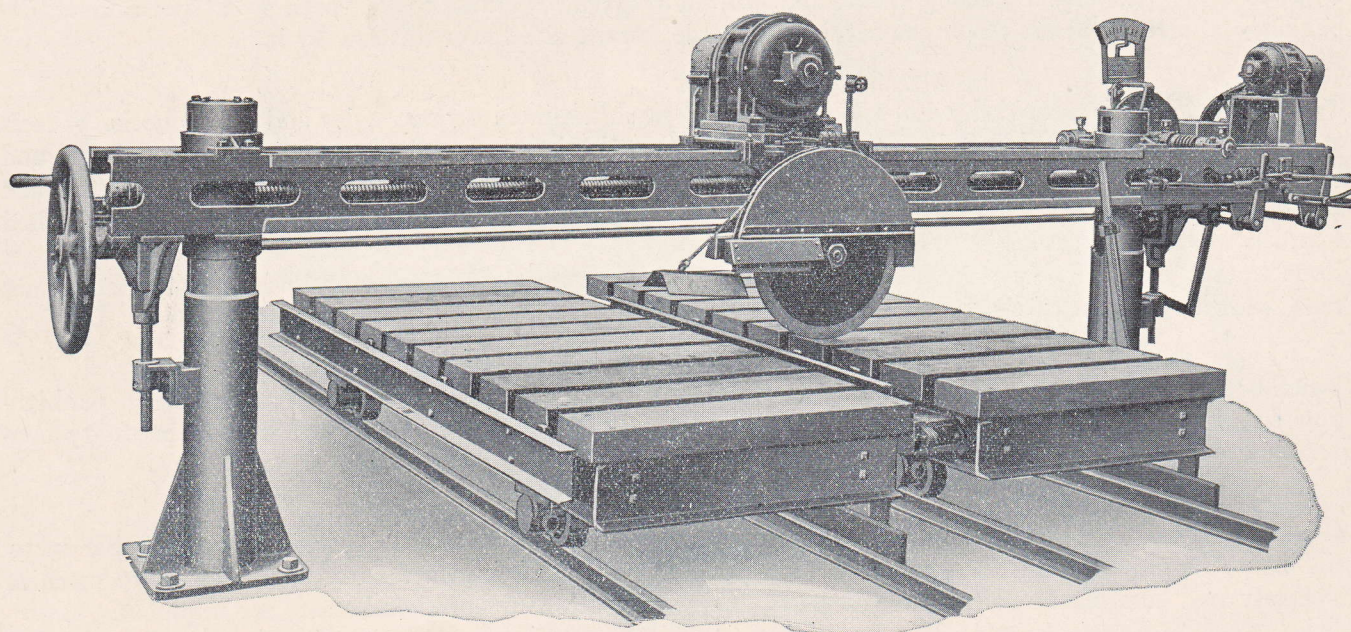
**General** Saw will be constructed in a high-grade manner throughout, the best and most suitable material being employed. All castings are of high-grade iron or steel, neatly finished, and the entire machine is neatly and serviceably painted, small parts, motor, etc., carefully boxed and crated for shipment.



## Bedford Carborundum Saws



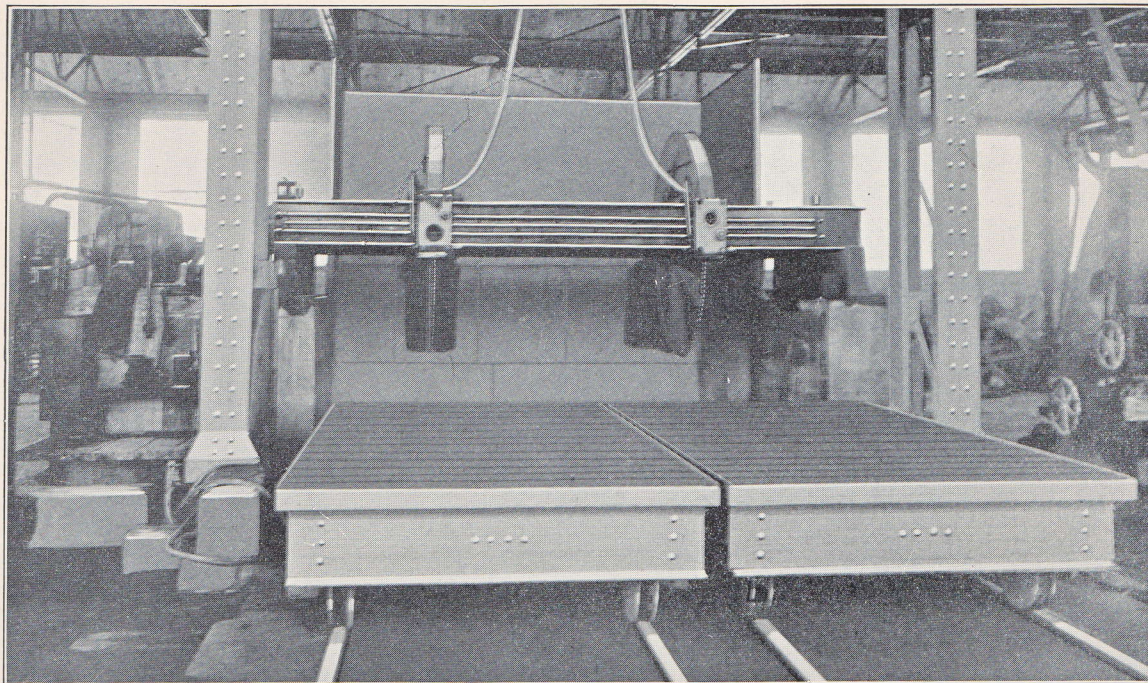
24" Carborundum Saw, 8' rip, hand raising and lowering.



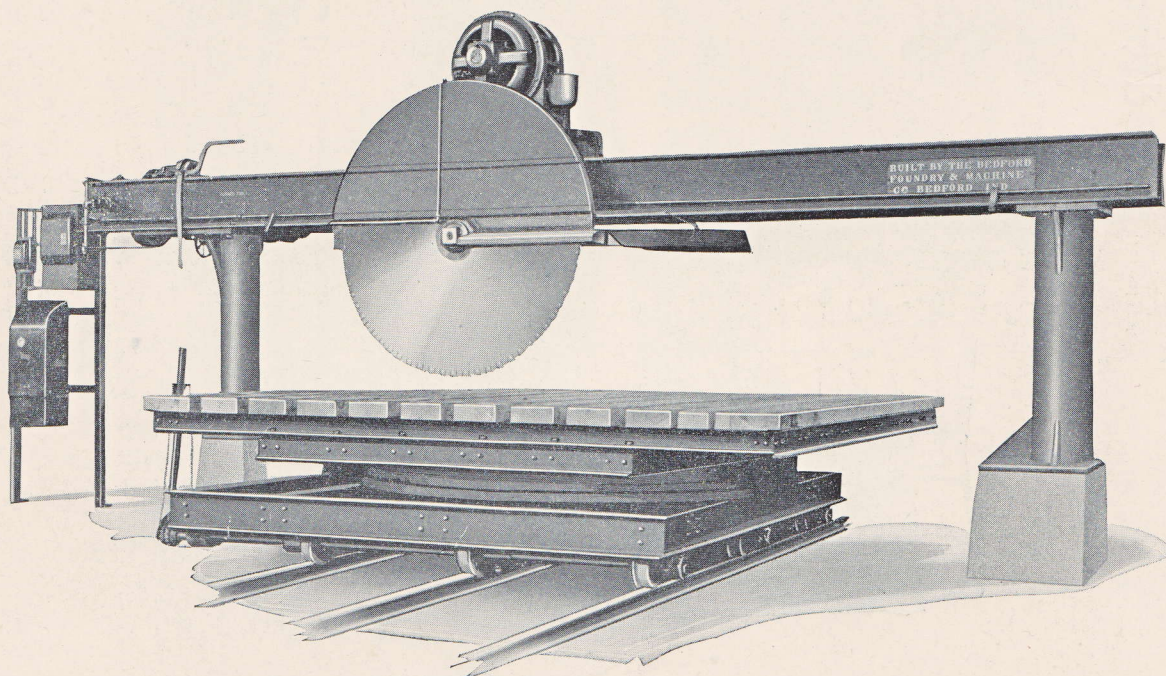
24" Carborundum Saw, 4' rip, hand raising and lowering.



## Bedford Diamond Saws



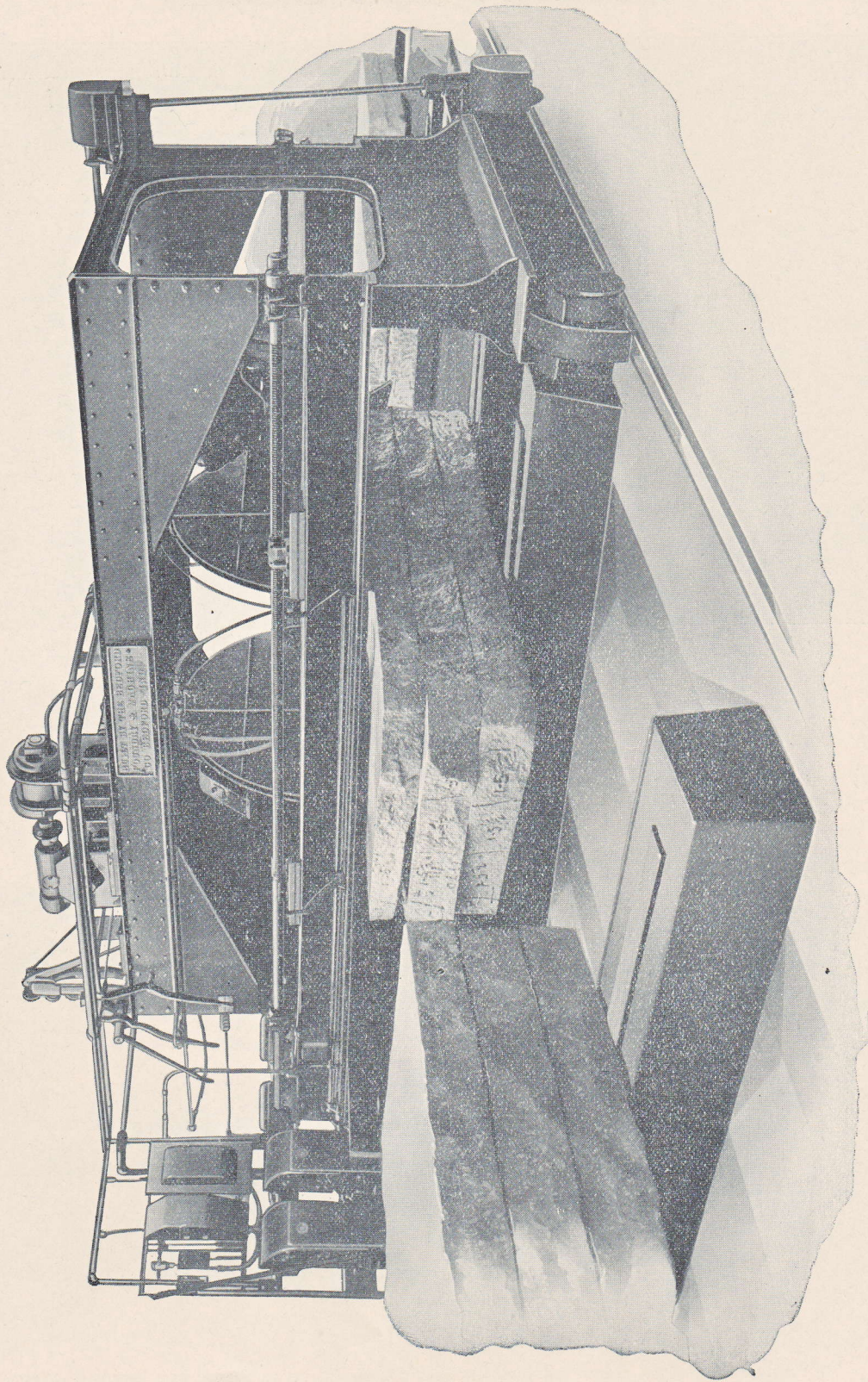
72" Double Blade Anderson Type Diamond Rip Saw, capacity 12' long, 12' wide, 2' 6" high.  
Double Trucks.



72" Carborundum Saw Frame provided for 14' rip mounted on stationary iron legs with turntable truck, whereby stone can be ripped to sizes and then jointed with only one setting.



## Bedford Gantry Saw



Gantry Saw equipped with two 72" diameter Diamond Saw Blades to saw 2' 6" high by 12' wide and to cut continuously in length as long as the customer's rails will permit.



## Bedford Gang Saws

THE next few pages, together with illustrations, show two types of Gang Saws that we manufacture, namely, the Lift Type Gang and the Non-Lift Parallel Motion Type, both of which have many improvements in design. They are described in detail in the following article.

All parts of these Gangs are so designed that any piece can be easily replaced without taking down a large part of the machine. With years of experience and intelligent designing, we have perfected these Gang Saws in a high degree. We have eliminated all defects, strengthening the weak parts, and as a result obtained a machine in which the strain is uniform, there being no weak points and no few parts unnecessarily heavy. Gangs are, as a whole, the heaviest machine of this type on the market. This being the case, and the weights so proportionately distributed, we offer the most efficient and economical machine.

Gang foundations are usually constructed in concrete, no wood sills being used.

Hopper bottom is sloped beneath Gang trucks, in order that the texture of sand and water or crushed steel, shot and water may be carried back to the pump pit.

Post bases are provided with sixteen anchor bolts.

Hurst frame foundation is usually made of concrete, very heavy, to withstand the impact when Gang is in reciprocating motion, provisions being made in this base for the support of structural steel line shaft support, and, when supplied, lightens the construction of building, no support from the building being required.

**Steel Frame** The posts are constructed of 10" H section steel beams, rigidly cross braced with angle iron of sufficient strength to avoid vibration. Steel frames are supplied with all necessary brackets to carry the shafts and feed mechanism.

**Gang Frame** The design has been much improved over the old-style 7" extra strong pipe that was bolted to gudgeons and end of gate heads which were used. This frame on our latest type Gang is made of 8" H section side rails, electrically welded into two 15" 70-lb. channels to each end or four corners, and further reinforced with ½" plate full width of the channel, electrically welded into flange running through to the top and bottom of side rails. This design gives a much more rugged construction and reinforced end gate channels to an absolute rigidity. (As illustrated on Page 22.)

**Hanger Boxes** Lift Type Gang. Our new style self-oiling hanger boxes are used as illustrated on Page 23. This box is fully enclosed so as to eliminate sand and water. This box is provided with brass bearings with adjustable take-up and has three times the life of the old open type of hanger box.

**Slide Frames** Parallel Motion Type Gang. This is best described as illustrated on Page 24. The saw frame is made exactly as described under "Gang Frame." The parallel motion being made to slide on four parallel round ground true shafts, their length being in proportion to the stroke of the crank shaft into a two-bearing knuckle, one bearing being made to clamp tight to sway bar, while the sway bar is also clamped into the screw nut casting to the four corners of the Gang posts and housings. Slide bearings are of high-grade Babbitt, and ample provision is made for lubrication.

**Housings** Housings are of heavy box section pattern with planed surfaces for housing nuts, and are also planed on back where they fit to the steel posts, so as to insure proper alignment. The housing nuts



## Bedford Gang Saws—Continued

have long planed seats to slide on. Housings have long bearings with caps, and nuts are carefully fitted and securely bolted to Gang frame posts.

**Feed Rig** It is of the ratchet type, driven by belt from the line shaft, and equipped with our improved change feed device, which is so arranged that the feed may be changed instantly from the ground. Gang frame feed is driven at the top end of housings, at the end of screws, there being sprocket wheel attached to each top end of housing screws, which are propelled by an endless chain and is driven by the ratchet gear type feed rig. Provisions are made for tightening chain or loosening it as required. Also provisions are made to raise and lower saw frame at a fast speed.

**Hurst Frame** Two stand type of Hurst frame is of box section, very heavy and strong, cast in one piece, with heavy blade having twelve holes for  $1\frac{1}{2}$ " anchor bolts. The bearings are 14" long and are made for  $6\frac{1}{2}$ " shaft. Frame is fitted with forged steel crank shaft, 22" throw, with wrists turned 6" in diameter, 5" long. Hurst frame bearings are babbitted with special hard metal, with ample provisions made for effective lubrication. The crane shaft is equipped with double belt driving pulley 60" in diameter, 12" face, and fly-wheel is 72" in diameter and accurately counterbalanced. This frame is provided with an improved belt tightener separate from the Hurst frame. Belt tightener is fitted up complete with 18" diameter, 12" face pulley having adjustable boxes, hand wheel and screw as illustrated on Page 22.

**Pitman** Steel Pitman is supplied which is a decided improvement, from the fact that it is impossible nowadays to secure wood timber of sufficient good quality to withstand the reciprocating motion of Gang Saws. This steel Pitman is made of an 8" H section rolled steel with Pitman straps riveted and electrically welded to each end of Pitman. Our new style of improved noddle pin box and Pitman box at Hurst frame end is furnished.

**Truck** Truck is constructed of heavy I-beams with channel ends and heavy bracing to keep frames square. It is provided with heavy pulling stirrups at each end with rods going through truck. Truck is mounted on three  $3\frac{1}{2}$ " steel axles having six 17" diameter single-flange truck wheels, said truck wheels having solid ends, which afford protection from sand and water and at the same time are arranged for proper lubrication.

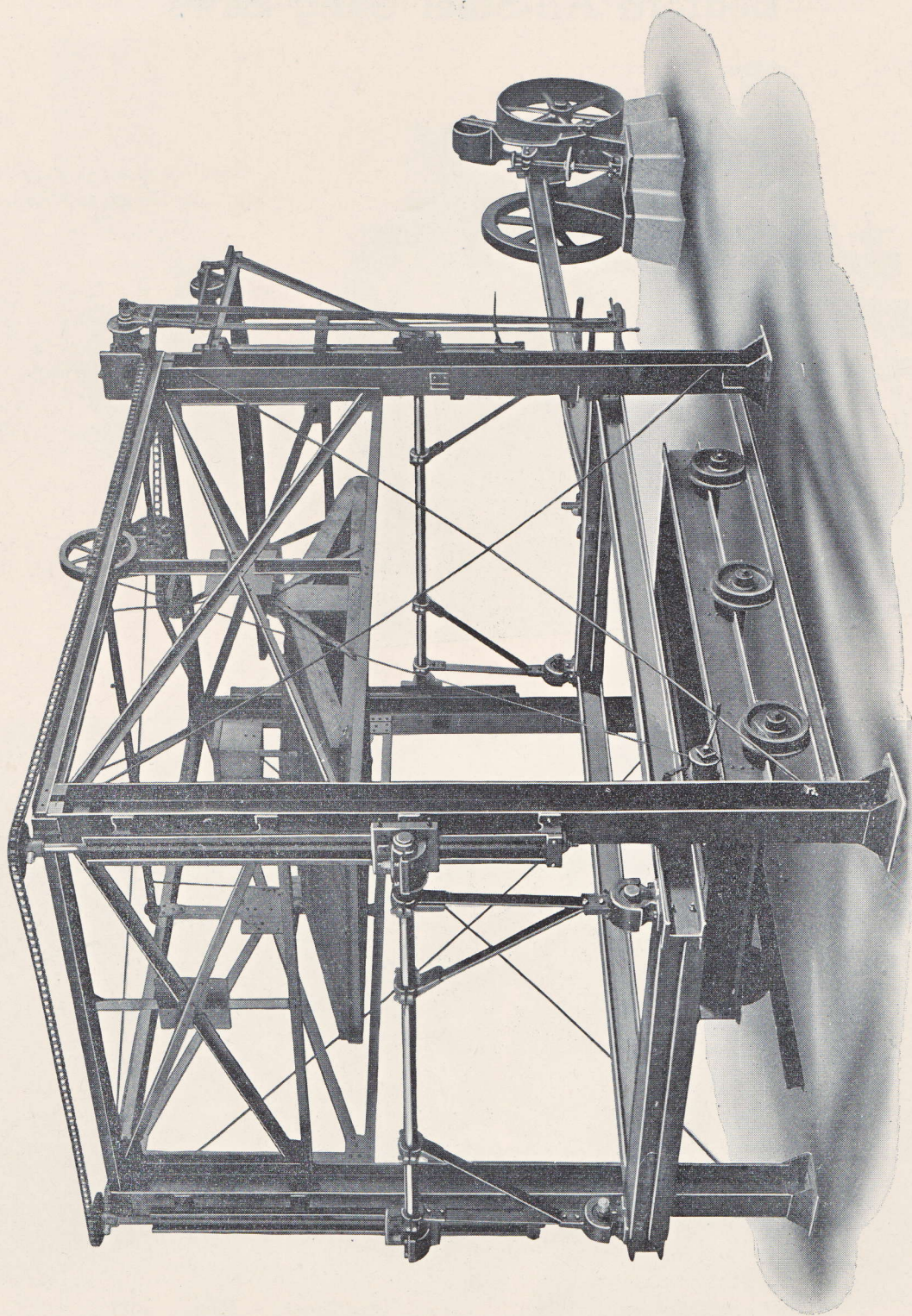
**Sand Pump and Distributing Tank** Sand tank and distributing tanks are usually supplied for Standard Lift Type Gangs as well as Parallel Motion Type Gangs where shot or a mixture of sand and water is used. Pump is illustrated on Page 25 and can be furnished in two sizes, 12" and 16" size, depending upon number of Gangs to be used.

**General** Gang Saws can be furnished either Standard Lift Type or Standard Parallel Motion for use with crushed steel or shot, complete with all necessary accessories, such as line shaft support, bearings, pulleys, motors, belts; in fact, everything erected on purchaser's foundation, or just the machine proper.

*Prices and Specifications to Suit Requirements Gladly Furnished*



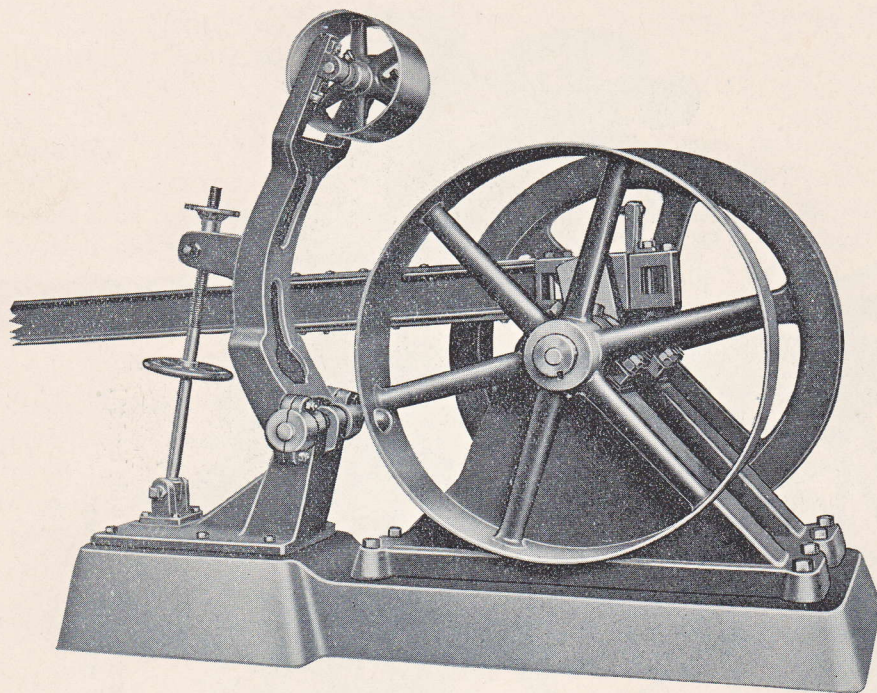
## Bedford All-Steel Gang Saw



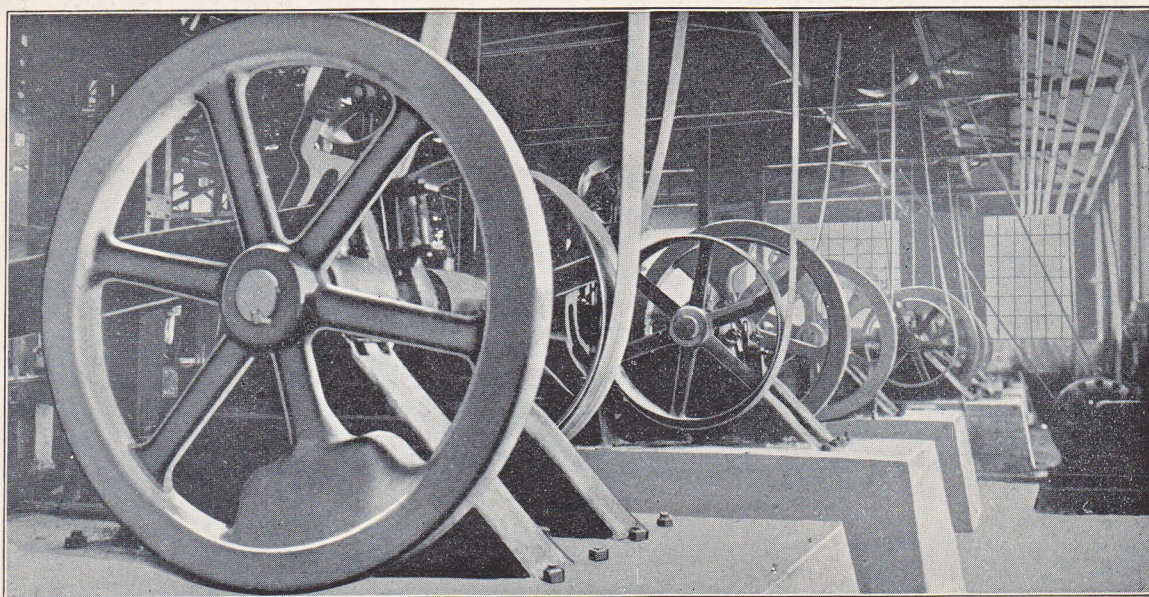
Bedford All-Steel Gang Saw, Lift Type, to saw 6' high by 9' wide by 14' long, fit up, showing Steel Pitman and Hurst Frame.



## Bedford All-Steel Gang Saws

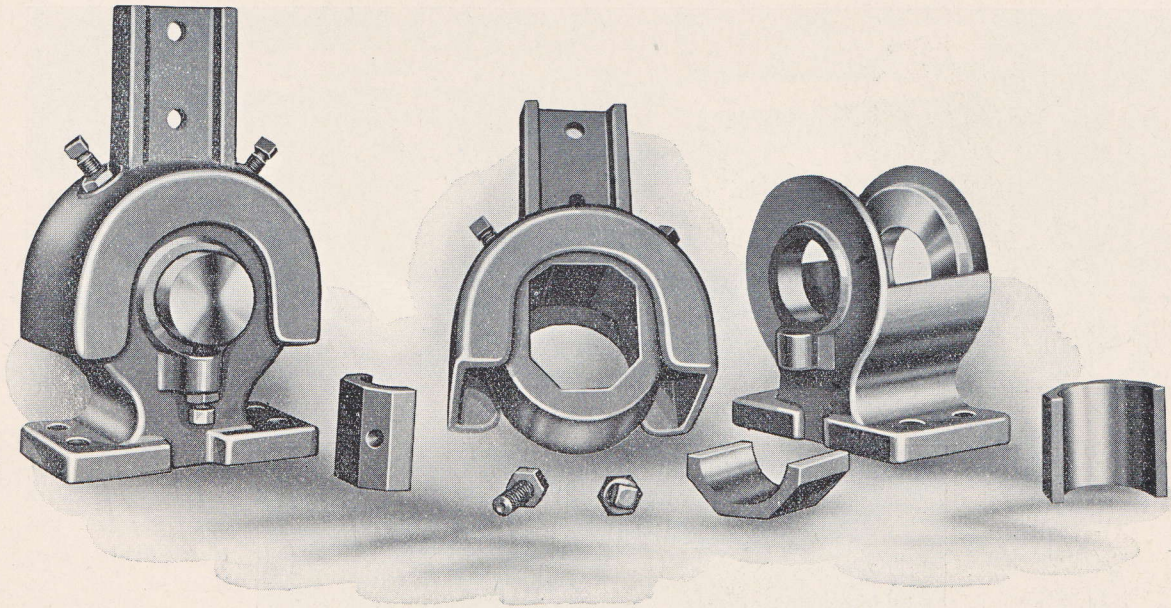


Assembled view One-Piece Hurst Frame,  
Idler Frame and Steel Pitman.

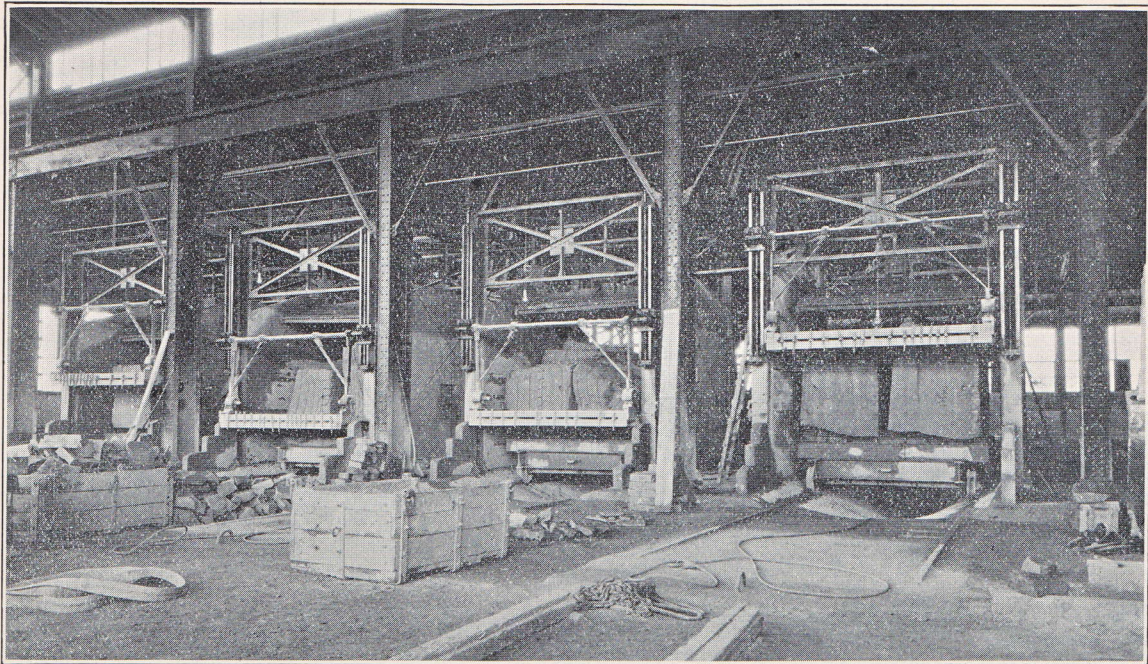




## Bedford All-Steel Gang Saws — Continued



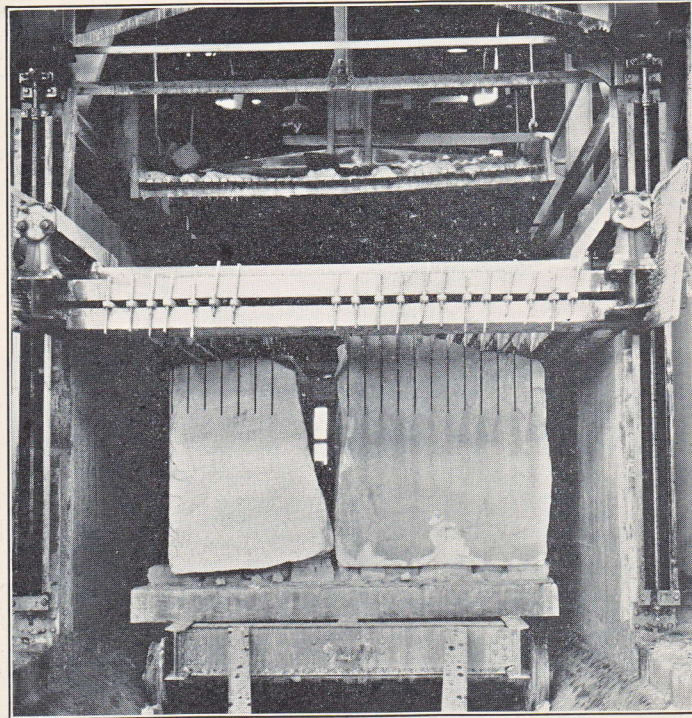
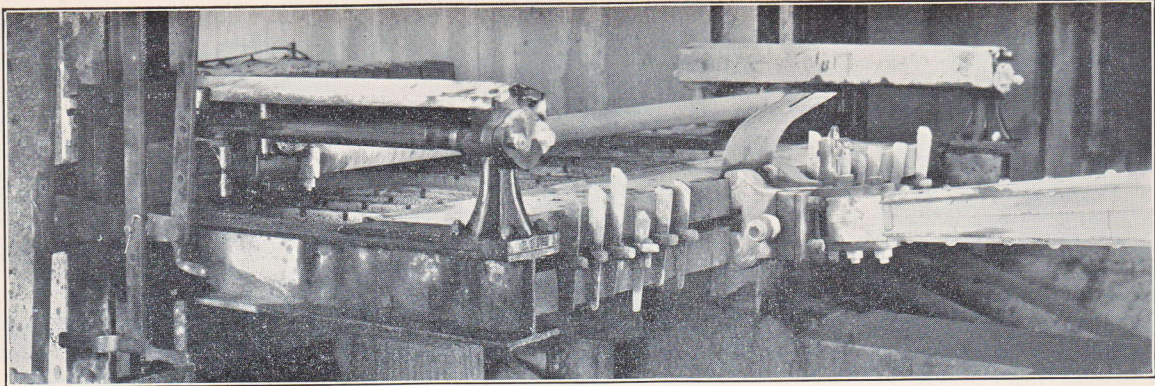
Assembly and Detail Parts, showing self-oiling, fully enclosed Hanger Box, made to eliminate sand and water.



Installation of four All-Steel Bedford Gang Saws furnished the Carl Furst Company, Bedford, Indiana.

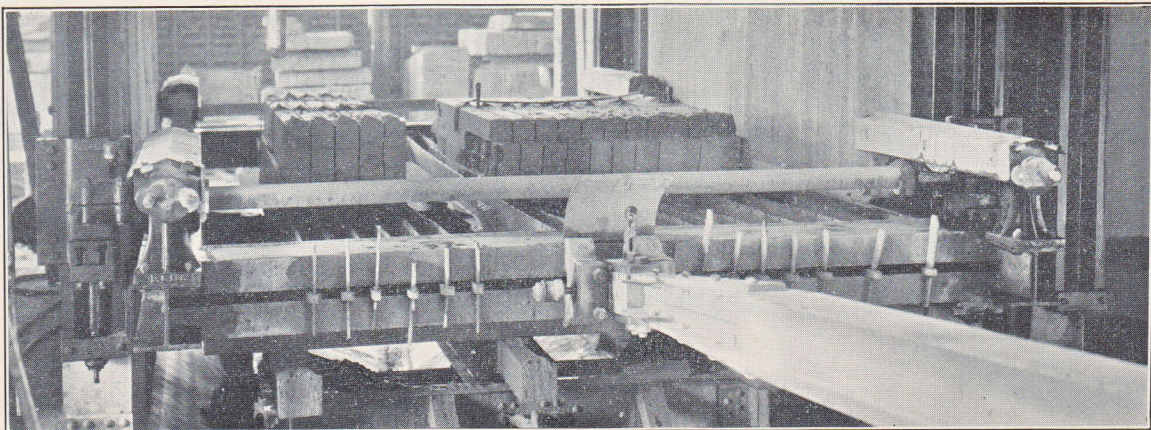


## Bedford All-Steel Parallel Motion Gang



*Above*—View showing Saw Frame with welded Gate Heads and Parallel Motion Slide Bars shielded.

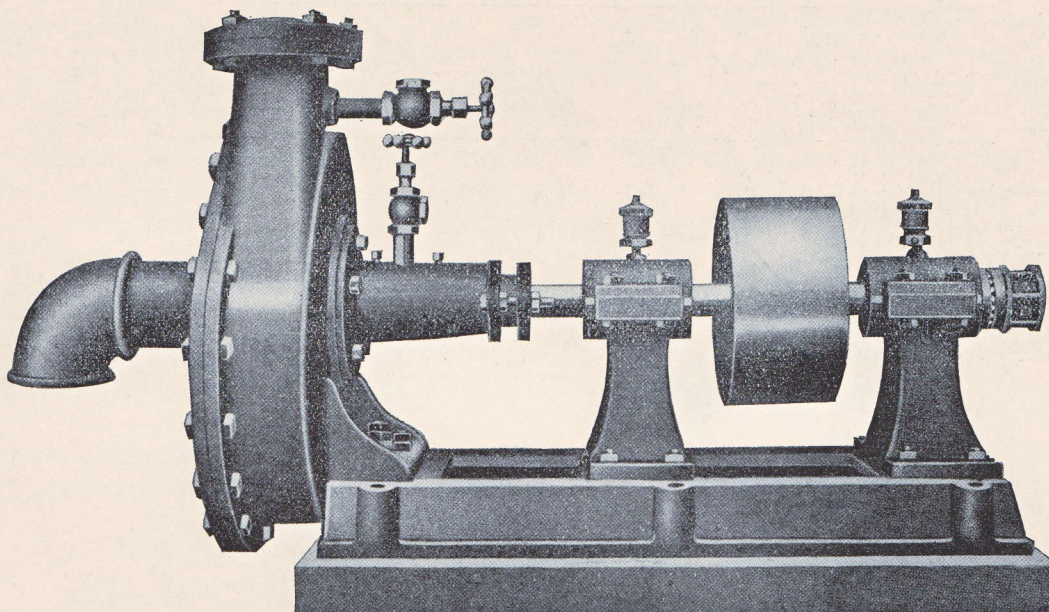
*At Left*—Front view, showing Parallel Motion Gang loaded with Indiana limestone.



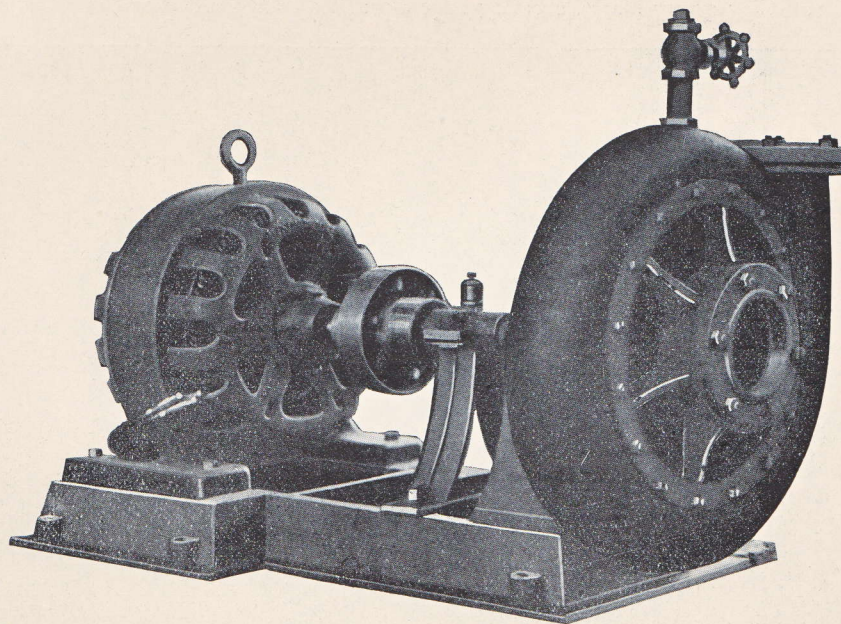
Parallel Motion Gang Saw Frame, using shot and crushed steel, fit up with seventeen 6 by  $\frac{1}{4}$  notched blades ganged up in Saw Frame.



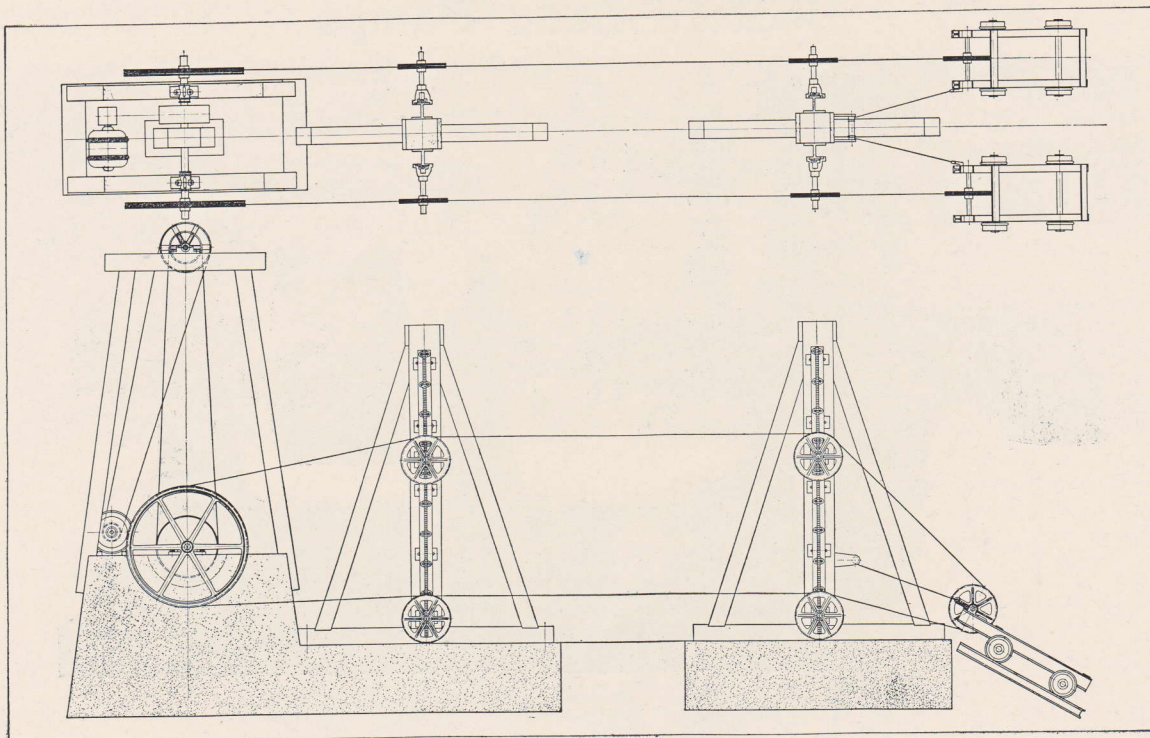
## Bedford Sand Pumps



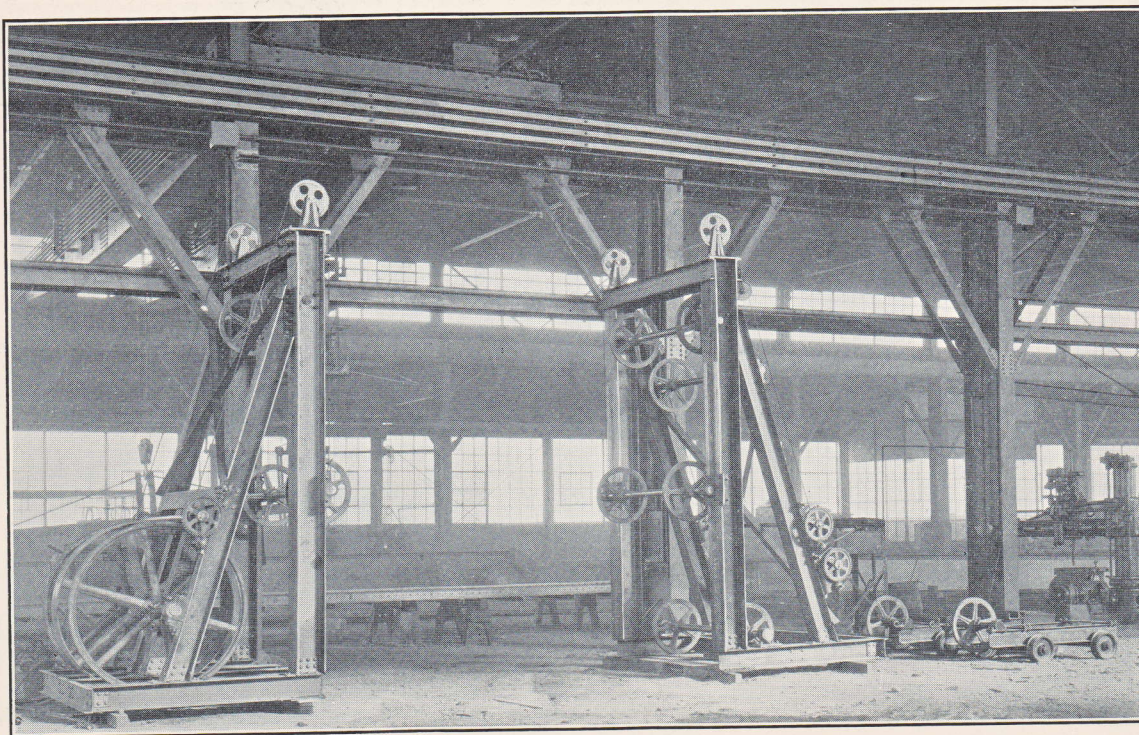
Bedford Centrifugal Sand Pump, made in two sizes, namely 12" and 16".



Bedford Centrifugal Sand and Water Pump, made in two sizes, namely 2½" and 6", for quarry use; the 2½", 400 gallons per minute, supplied with a 15 h. p. motor; the 6", 1,000 gallons per minute, supplied with a 30 h. p. motor.



Plan and elevation print of Standard Wire Saw, which can be made either for use with single wire or double wire, and posts with housings carrying idler sheaves placed any distance up to 50' centers. This saw is used a great deal for sawing rough ends from quarry blocks or used for scabbling quarry blocks, checking large stones too deep for diamond saws.



A special Wire Saw arrangement built for sawing stone in quarry. This machine is of a double wire type. Said wire can be adjusted from approximately 12' to 5' in width.

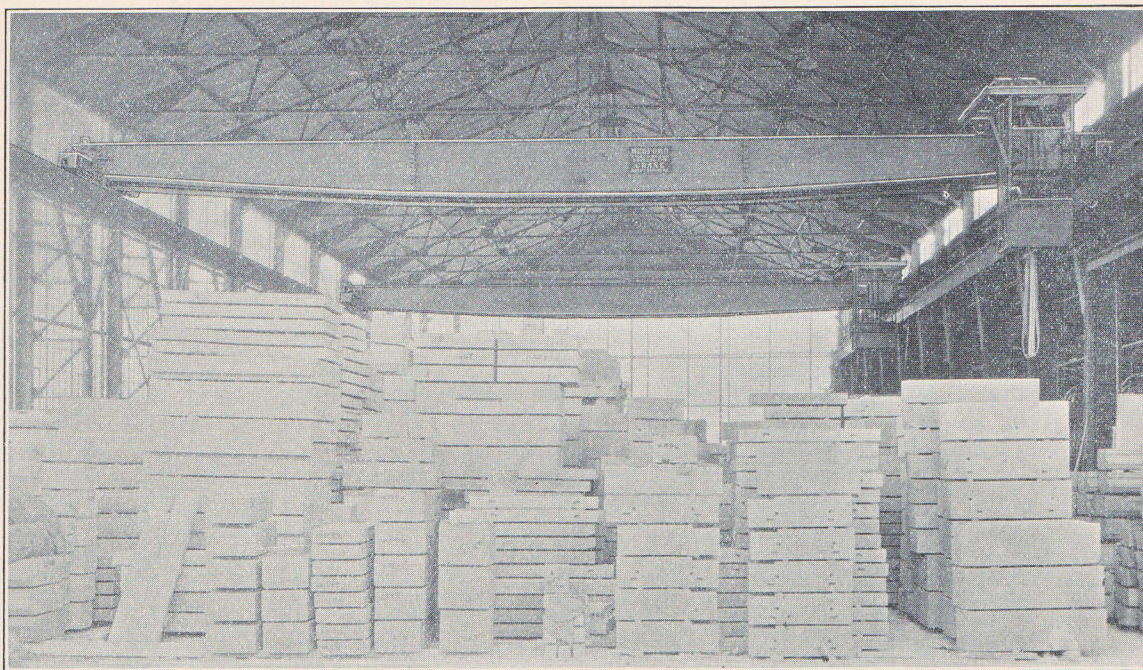


## Bedford Electric Two-Motor Cranes

WHILE the Three-Motor Type Cranes are most commonly used throughout the industrial plants, the BEDFORD Electric Two-Motor Crane is recognized as being the best adapted for cut stone plants throughout the Bedford and Bloomington districts.

The machines are made of several types, as shown by the following cuts, capacities ranging from five to thirty tons, any span. It is possible to get all motions that can be obtained by a Three-Motor Crane and the movements are considerably faster. The hoisting mechanism is provided with two speeds—slow speed for full loads, and fast speed for light loads. The load is lowered by aid of a powerful foot brake entirely independent of the reversing motor, which is quite a saving in the power consumption and allows the load to be lowered fast or slow as desired. All structural material conforms to the manufacturers' standard specifications, castings are free from injurious defects, made entirely from analysis, and where excess strain is brought to bear, cast steel castings are used. Babbitt and brasses are strictly first grade.

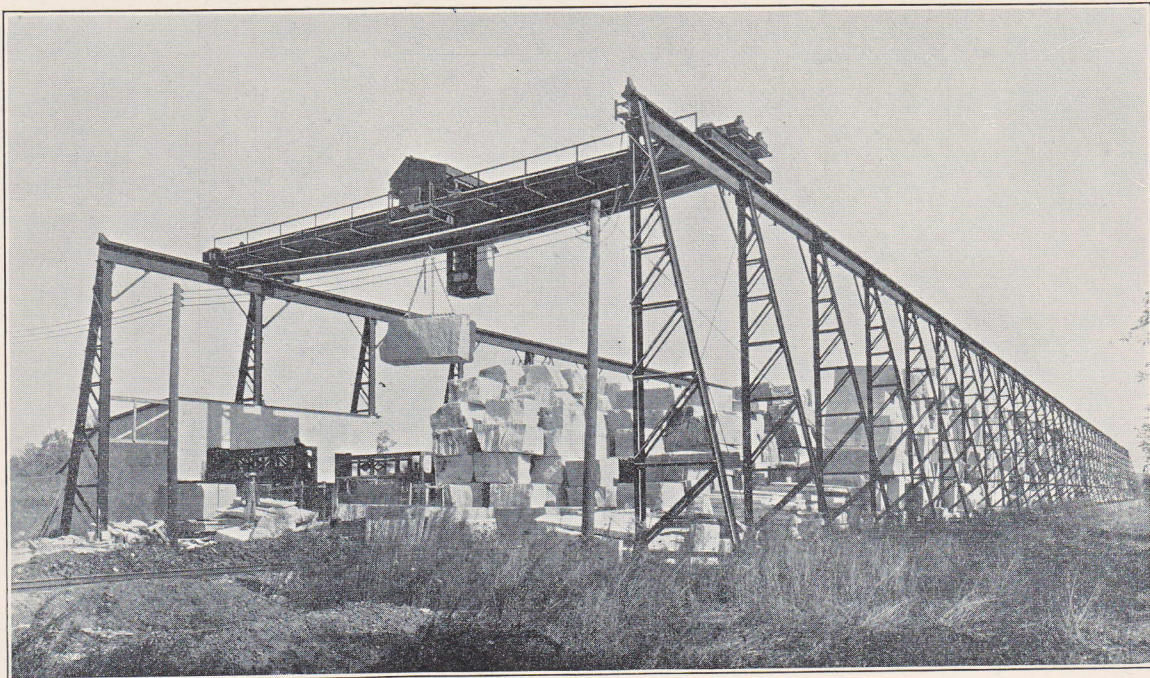
Cranes are constructed in a high-grade manner, neatly and serviceably painted with two coats of graphite or lead paint, bright parts being slushed.



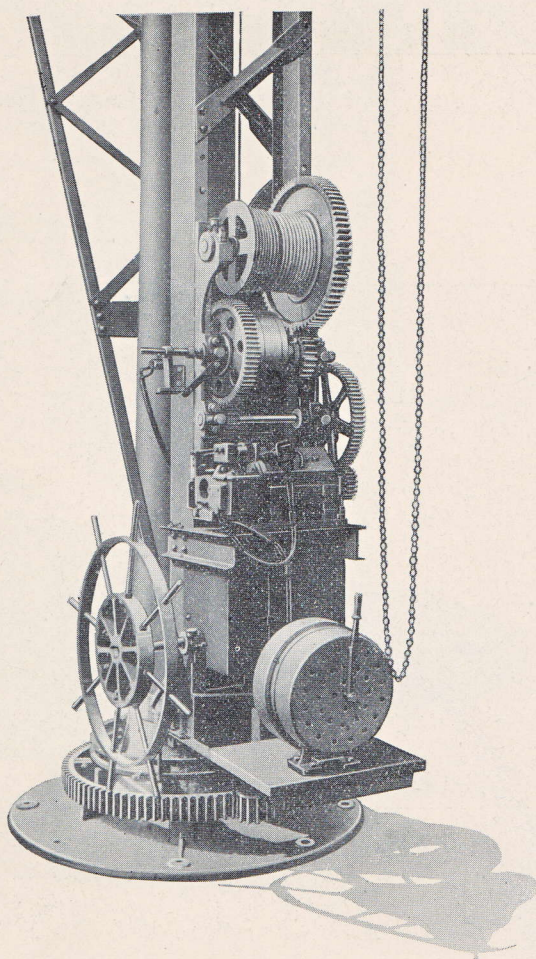
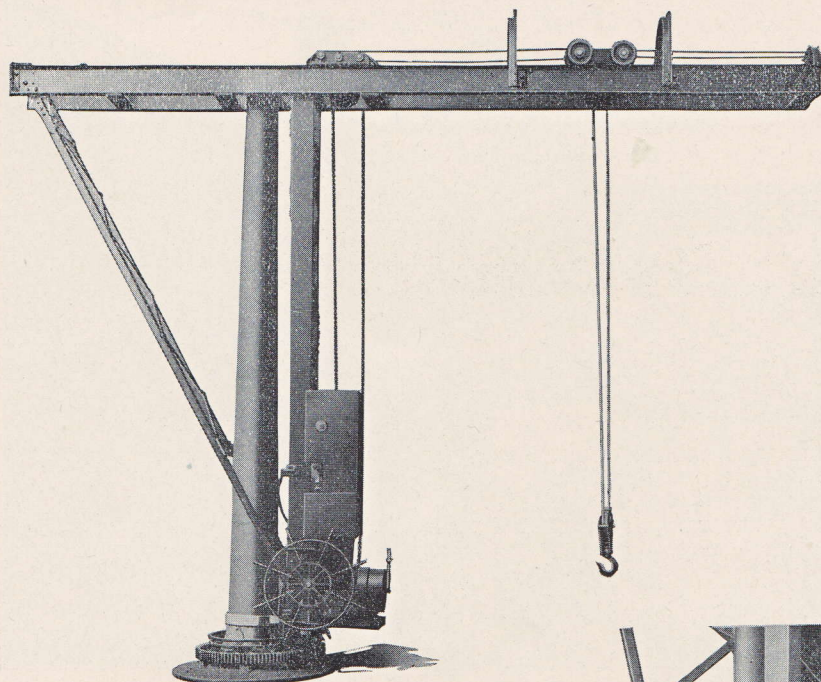
One 7½-Ton and one 15-Ton 2-Motor Electric Overhead Traveling Crane furnished the Carl Furst Company, Bedford, Indiana.



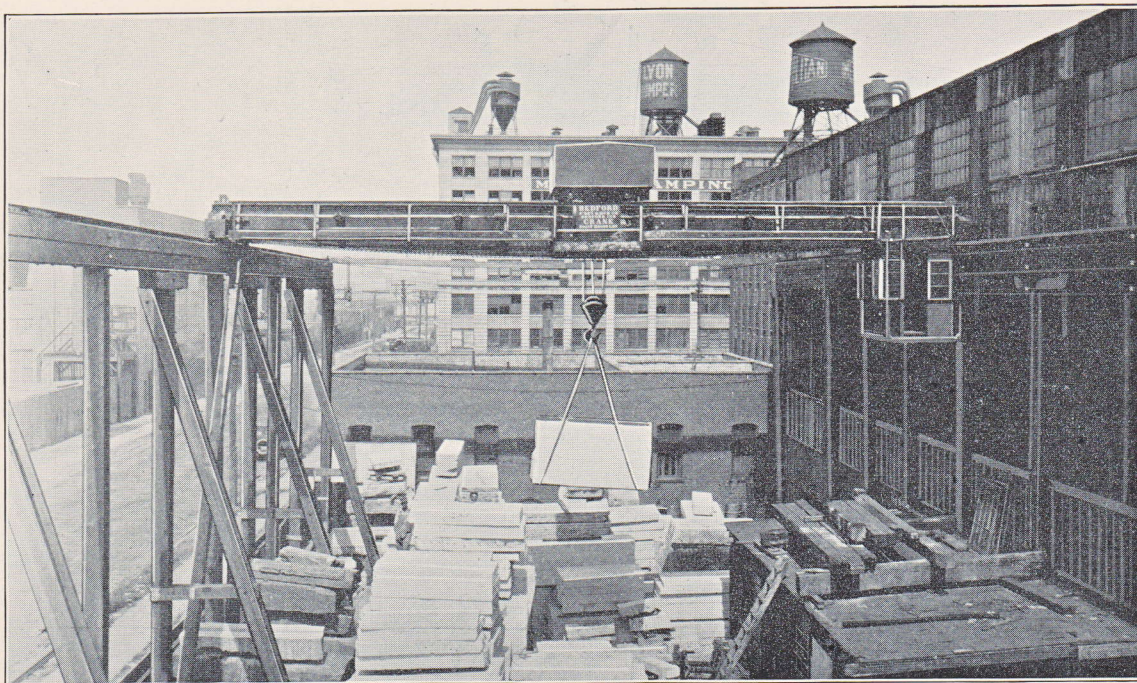
Chicago Cut Stone Company, Chicago  
7½-Ton, Three-Motor, Floor Control, 50' Span



Twenty-five Ton Two-Motor Overhead Traveling Crane, 70' span, and showing 1,000' of structural steel crane runway, 35' high, used for stacking yard. Furnished the Shawnee Stone Company, Bloomington, Indiana.

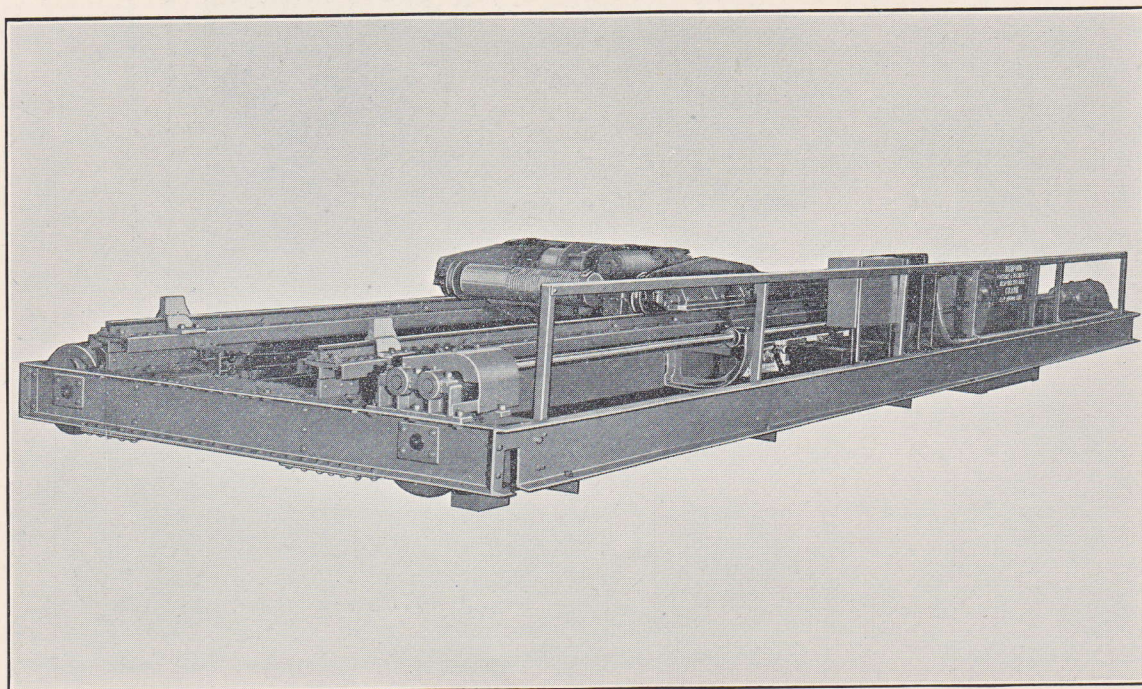


A Three-Ton Pillar Crane built for the United States  
Navy Department at Norfolk, Virginia.



James Gilles & Sons Company, Long Island City, New York.  
Fifteen-Ton 52' 0" Span Three-Motor Electric Crane

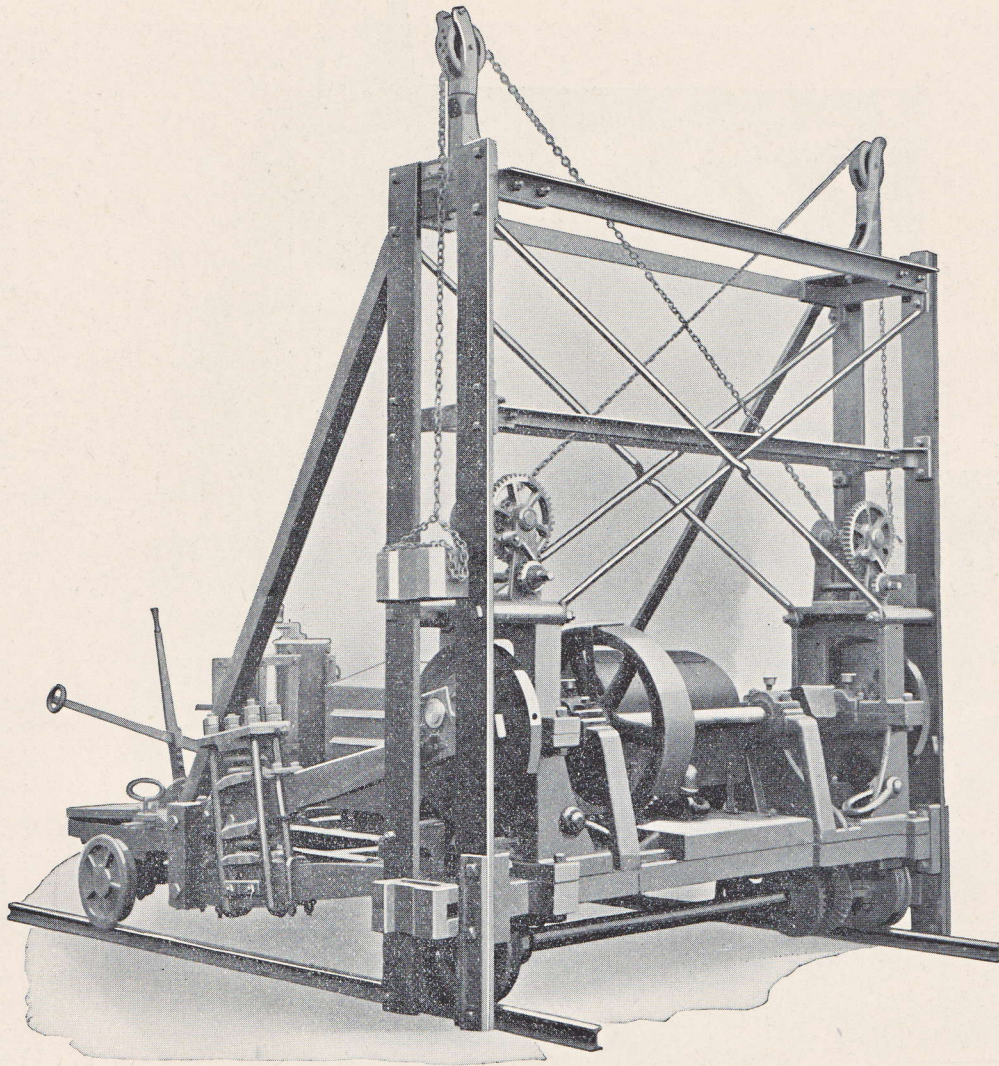
## Low Headroom Crane



Five-Ton Double I-Beam Crane, 35' span, three motor floor control. This Crane was designed for the purpose of installing Crane where building clearances are limited and very low. This Trolley is designed for worm-gear drive. This type made in 3 and 5-ton capacity up to 40' span.



## Bedford-Wardwell Channeling Machine

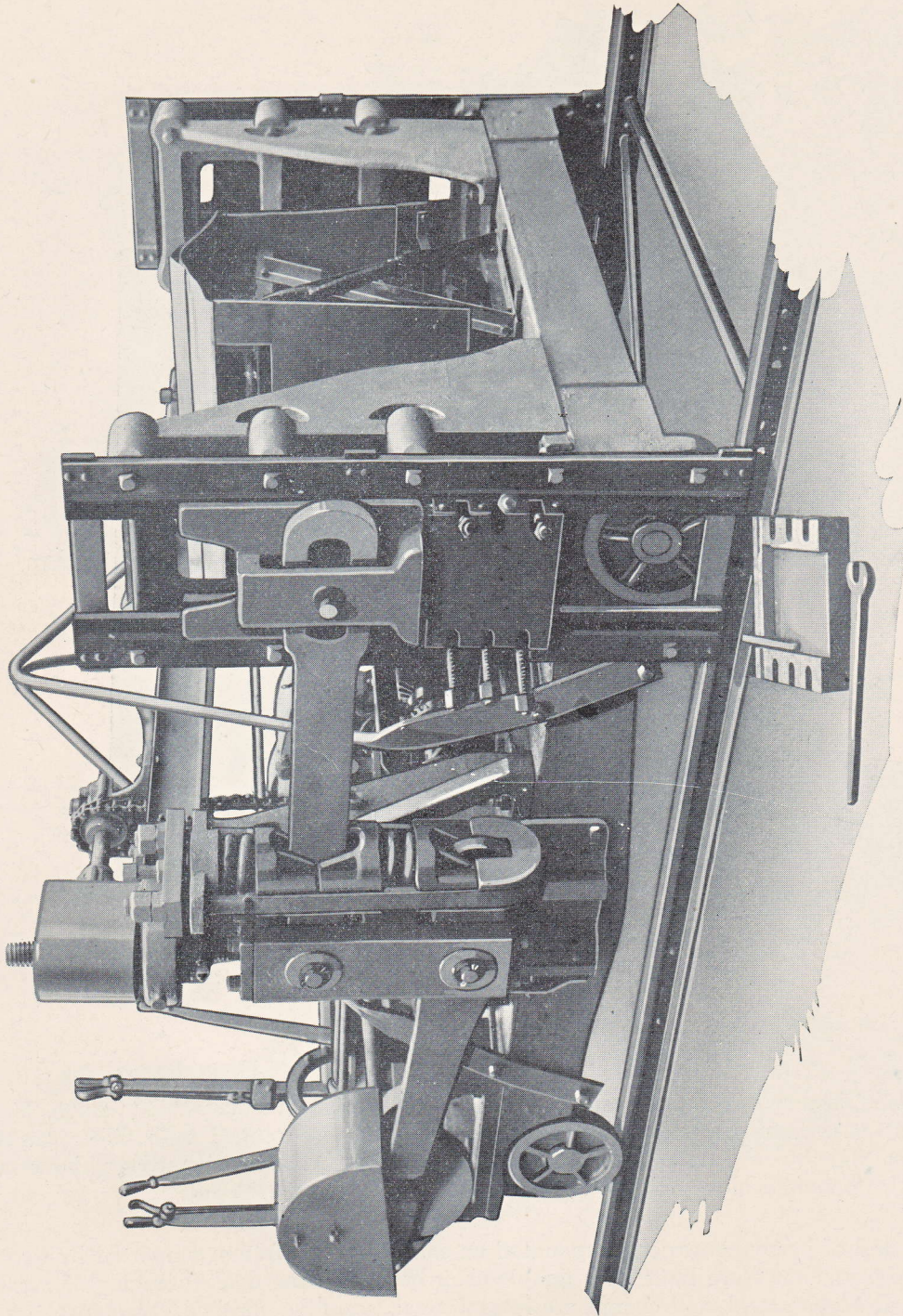


The Improved Electric Wardwell Channeler can be made in three sizes, namely 8' 4" gauge, 6' 6" gauge, 5' 2" gauge, the 8' 4" gauge being more extensively used, and can be equipped with either direct or alternating current motors, and are so constructed that they will cut two vertical channels without moving the track. Each side can be operated alone or both together.

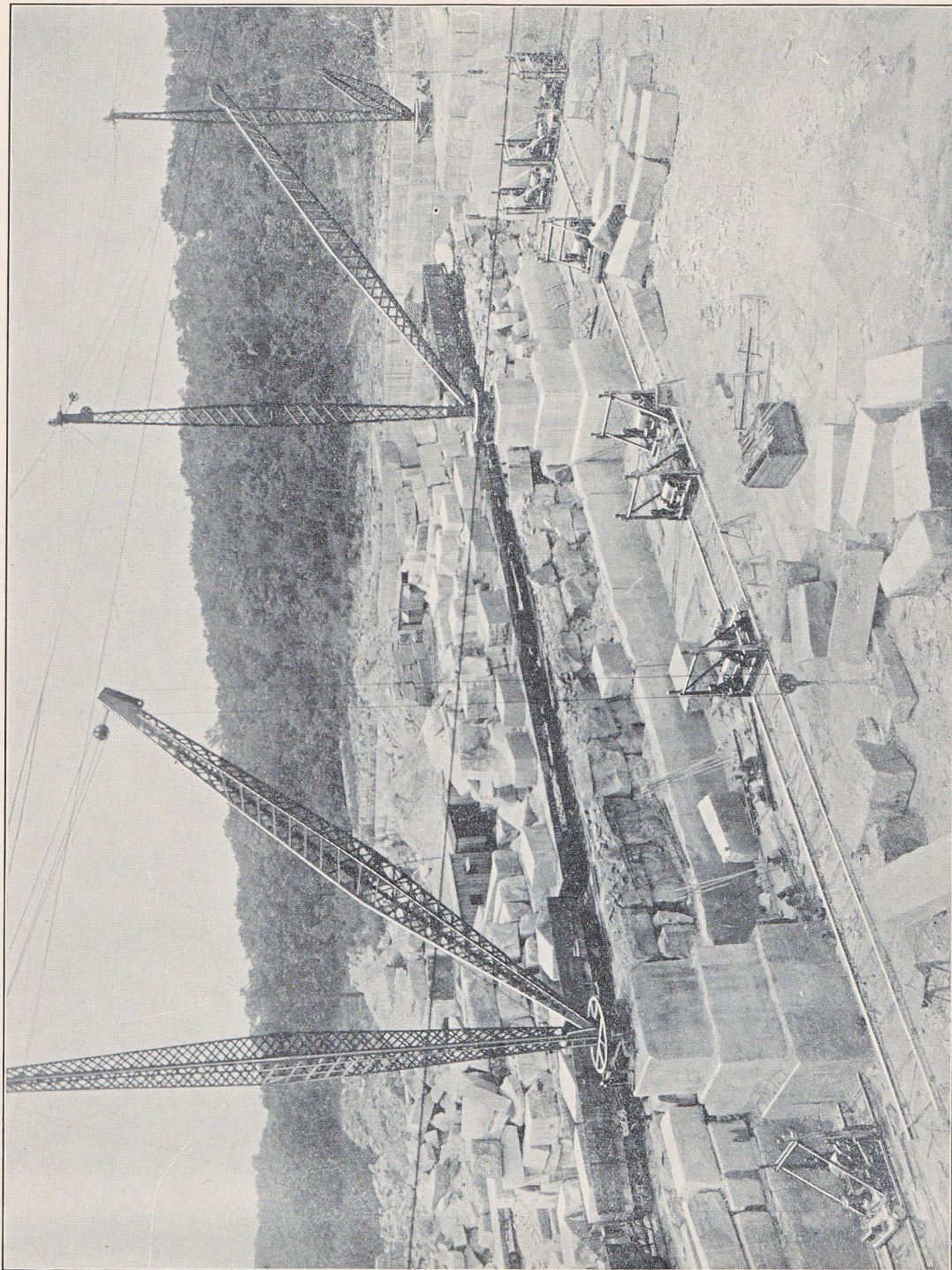
The machine is rigid and of heavy construction, mounted on solid cast steel frame, supported by two axles with cast steel truck wheels. Machines are built with double chair boards having double bracings. Levers furnished are made of high-grade carbon steel, and clamps are forged steel, machine finished. Machines are furnished with two sets of drills, long and short, with 60' 0" track, together with the necessary tools.



## Bedford Gyger Patented Channeling Machine



This machine was designed with the idea of increasing production over the Wardwell type, and made with the idea of eliminating the type of drill clamps used. This type is made with the idea that the lever would be directly over the drills. The drill heads are arranged for a power feed down to 24" in depth. The machine was made and particular attention given to very rugged construction, mounted on cast steel frame, and is made to channel two vertical cuts 8' 4" between.

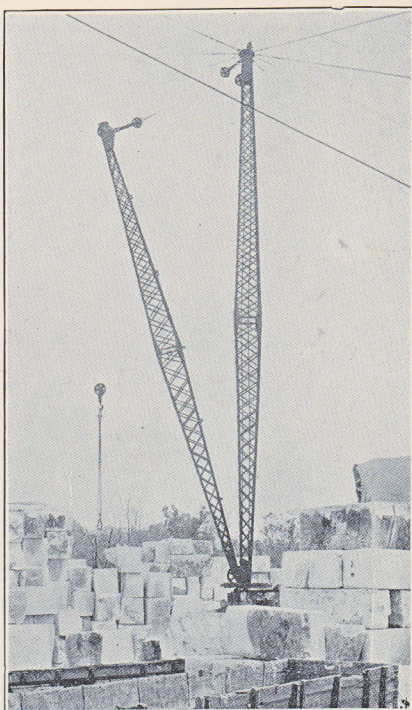


Eight Bedford Electric Wardwell Channeling Machines in operation at Dark Hollow Quarry,  
Bedford. Also three All-Steel 30-ton capacity Steel Derricks.

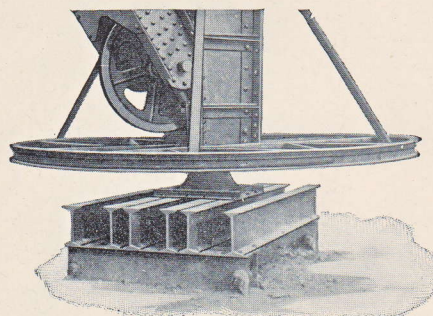


## Thirty-Ton Bedford Steel Guy Derrick

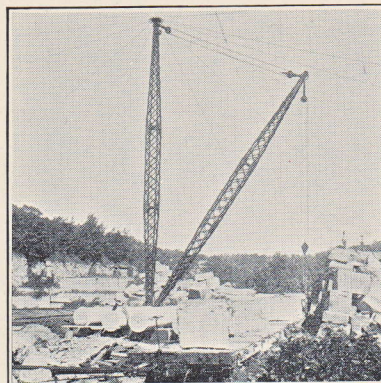
Thirty-Ton Steel Guy Derrick equipped with Power-operated Sluing Attachment for swinging the boom.



Thirty-Ton Steel Guy Type Derrick, 80' mast, 70' boom.  
Indiana Limestone Company,  
Bedford, Indiana.

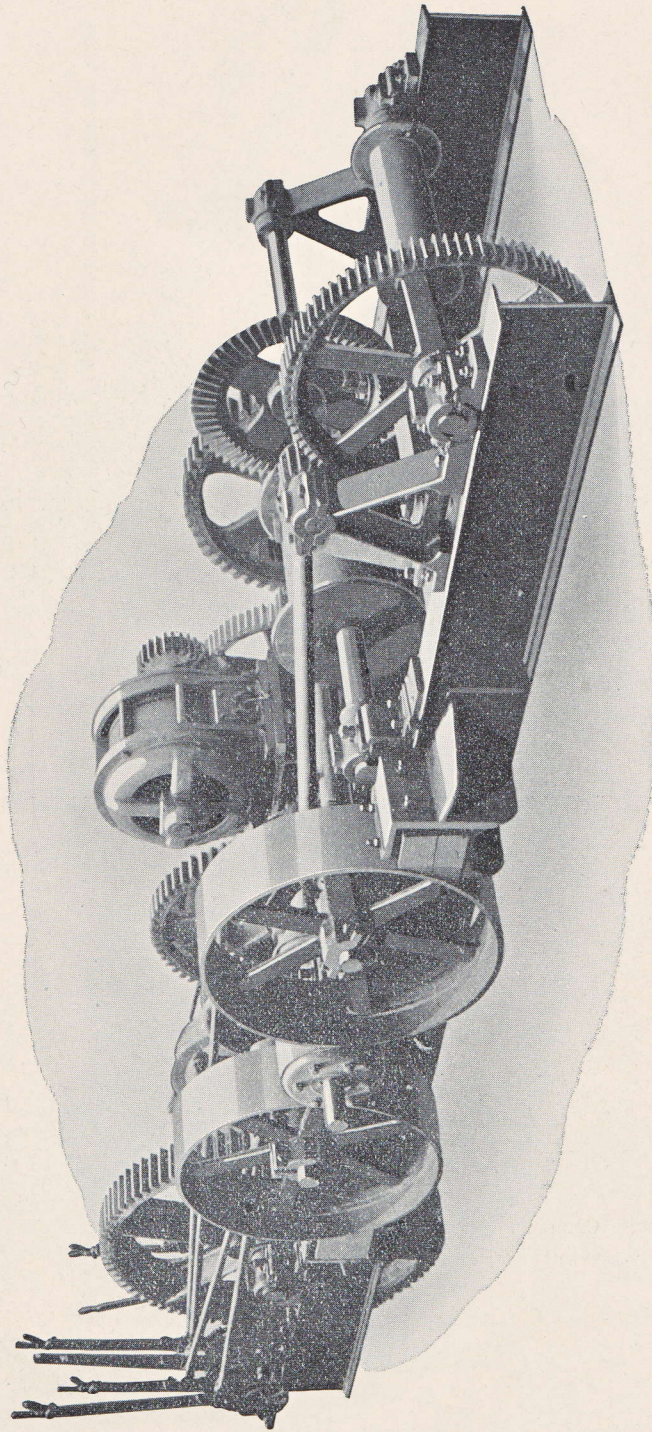


Base of Derrick, showing 7' 6"  
Bull Wheel.

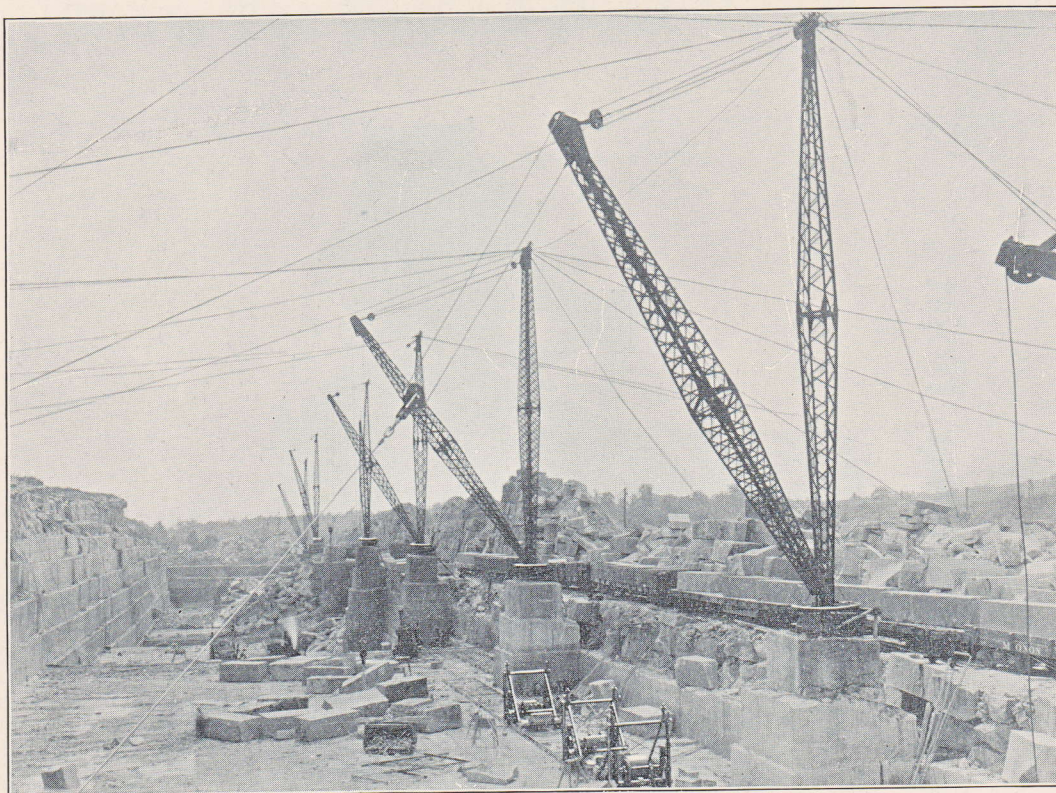




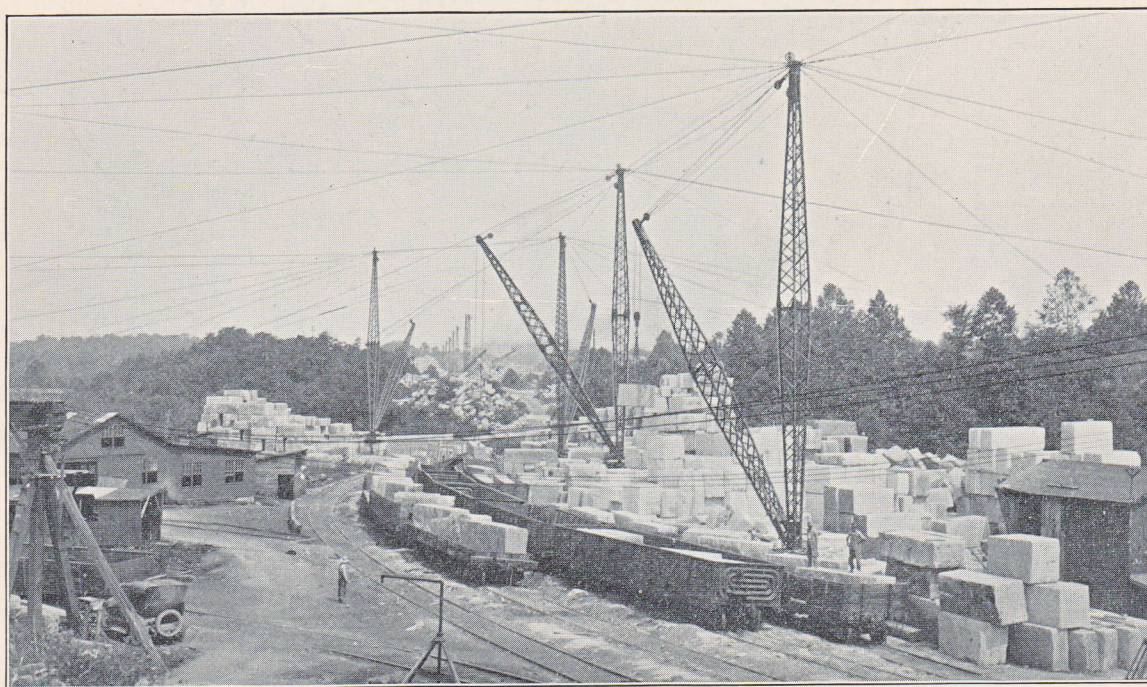
## Bedford Standard Double Drum Power Hoist



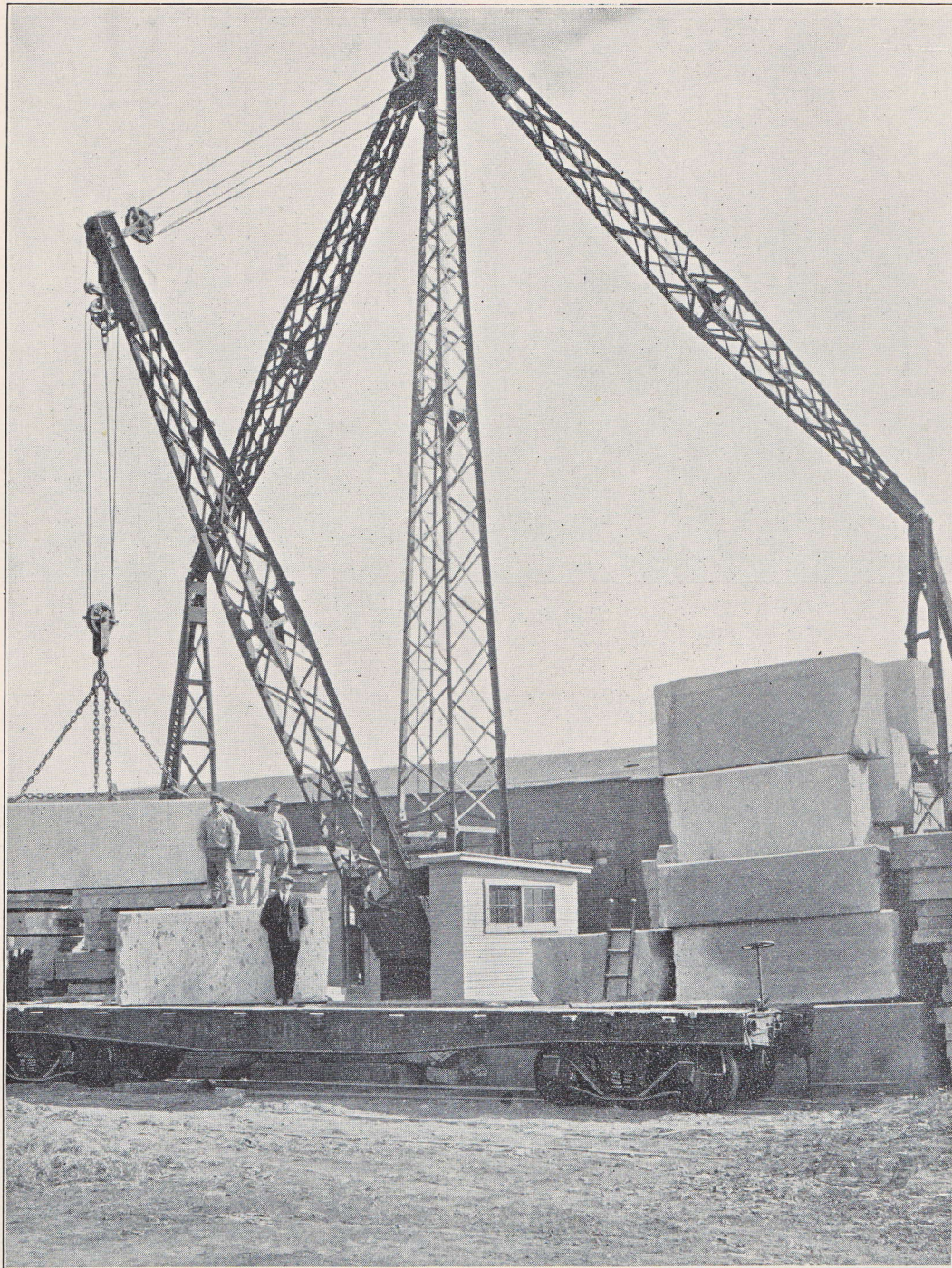
Thirty-Ton Standard Quarry Power Hoist, with Sluing Attachment mounted on Steel Frame.



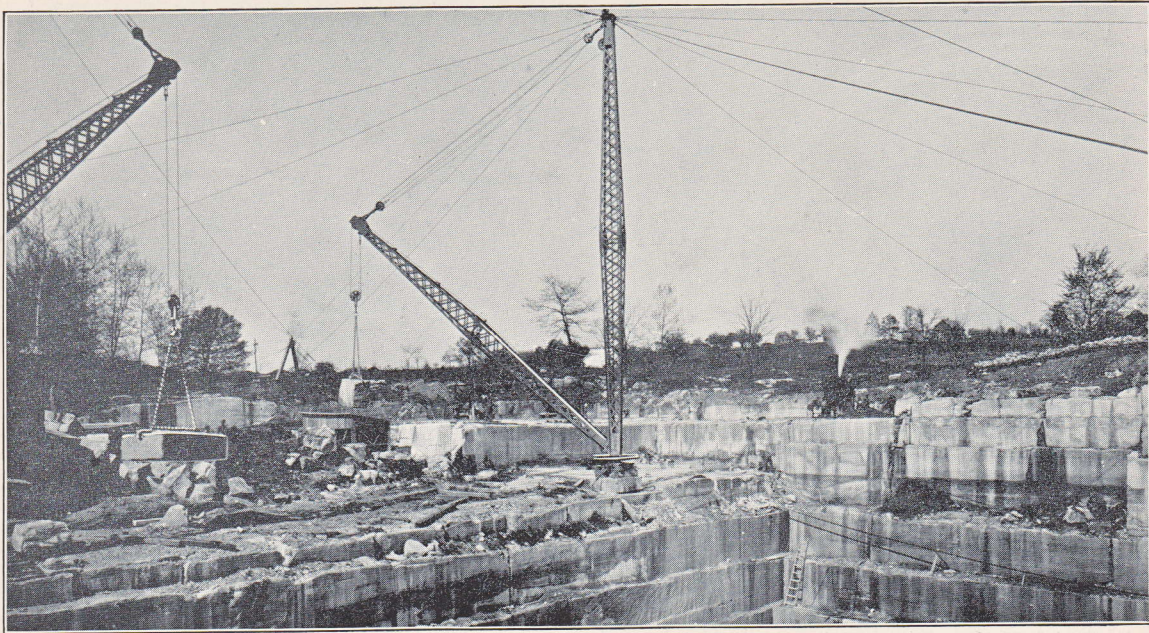
Typical quarry scene, showing number of Bedford Steel Derricks and Electric Channelers.



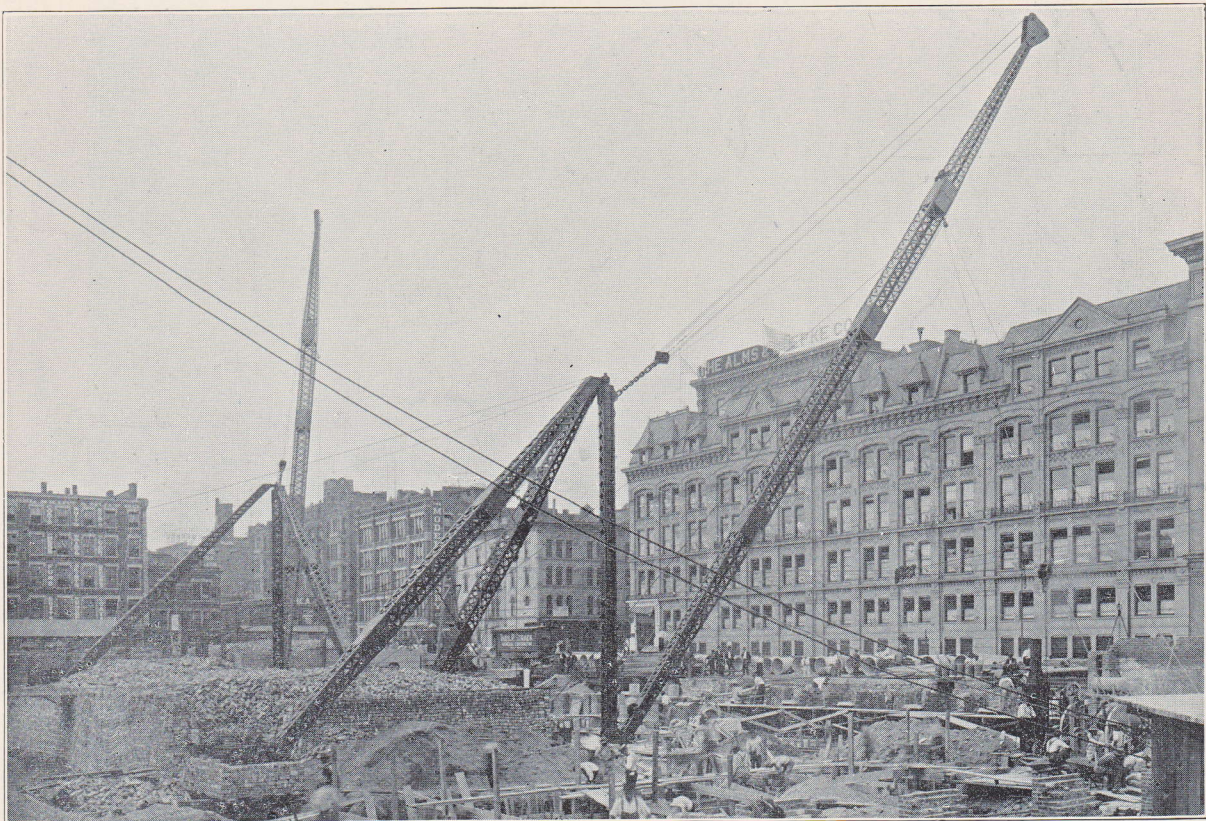
Typical quarry scene, showing a number of Bedford Steel Derricks.



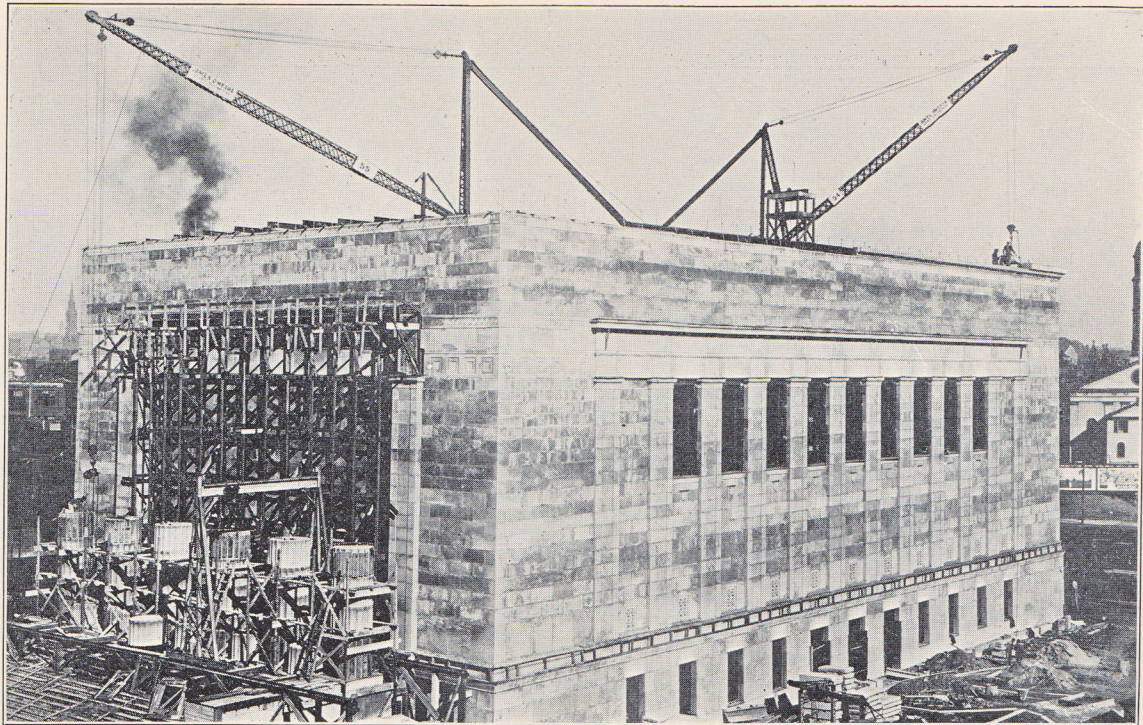
Twenty-Ton Self-Contained Complete Circle Stiff Leg Derrick.  
Rowat Cut Stone Company, Des Moines, Iowa.



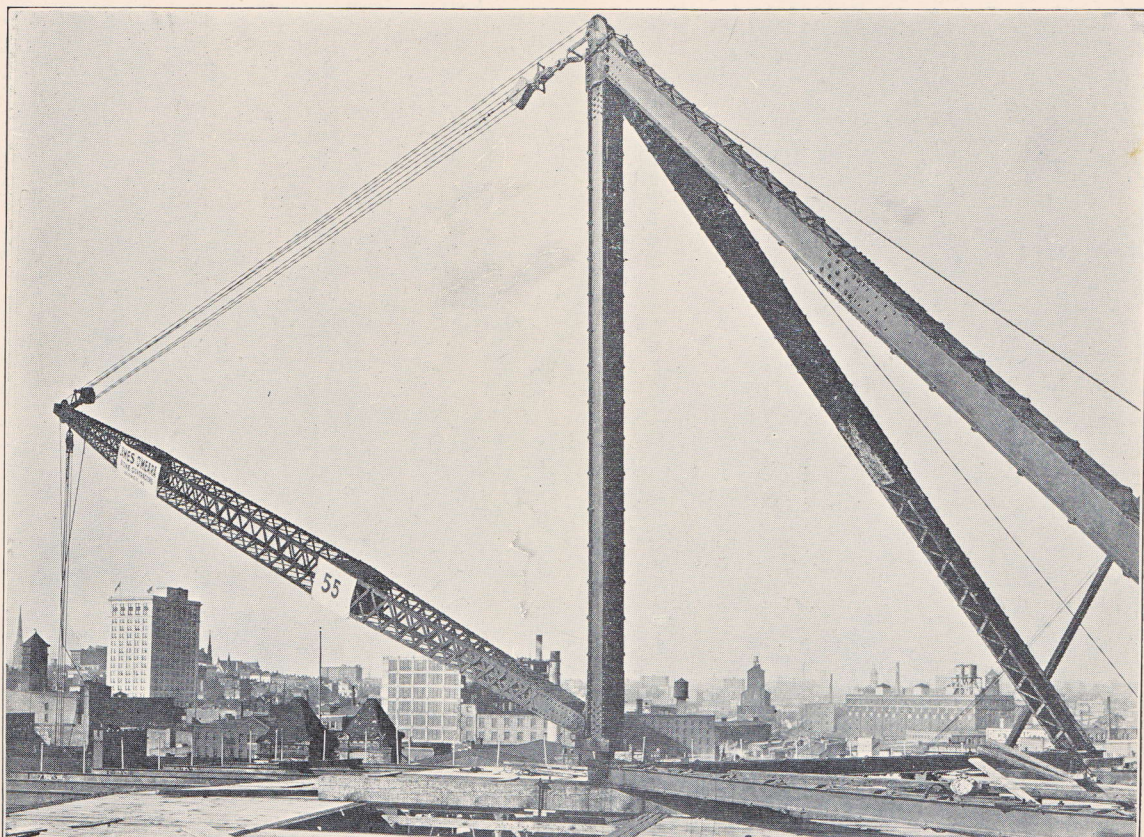
Thirty-Ton Steel Derrick.  
Hunter Valley Stone Company, Bloomington, Indiana.



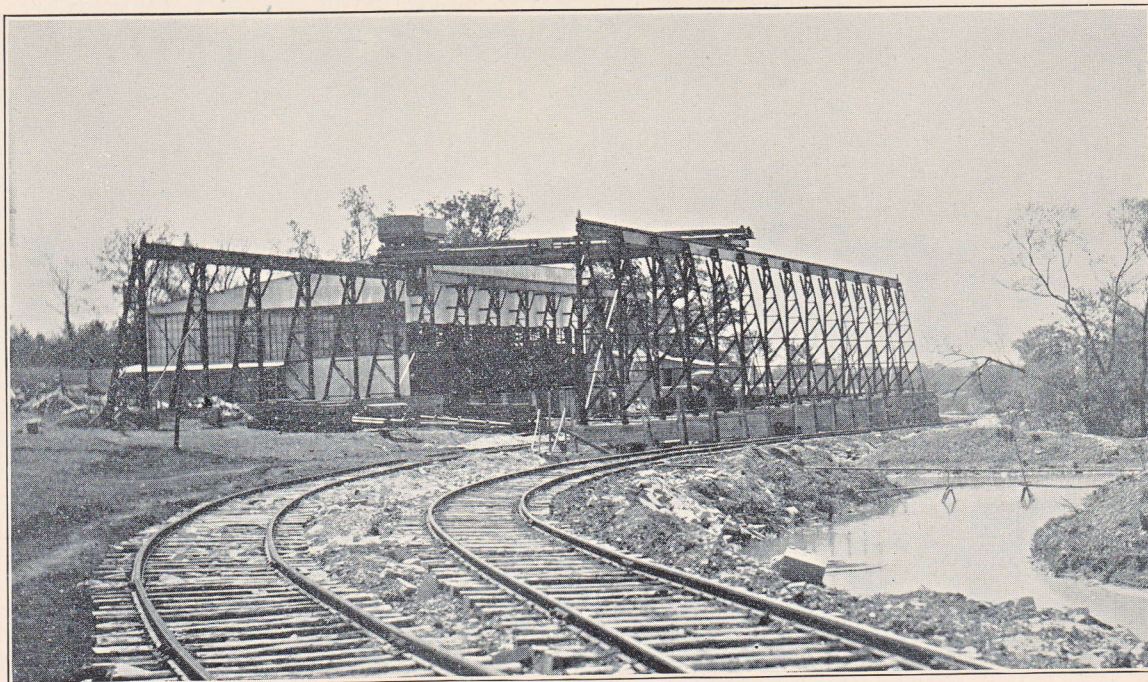
View of two Bedford Stiff-Leg Steel Derricks on construction work.  
These Derricks are of 20-ton capacity, having 40' masts and 100' booms.



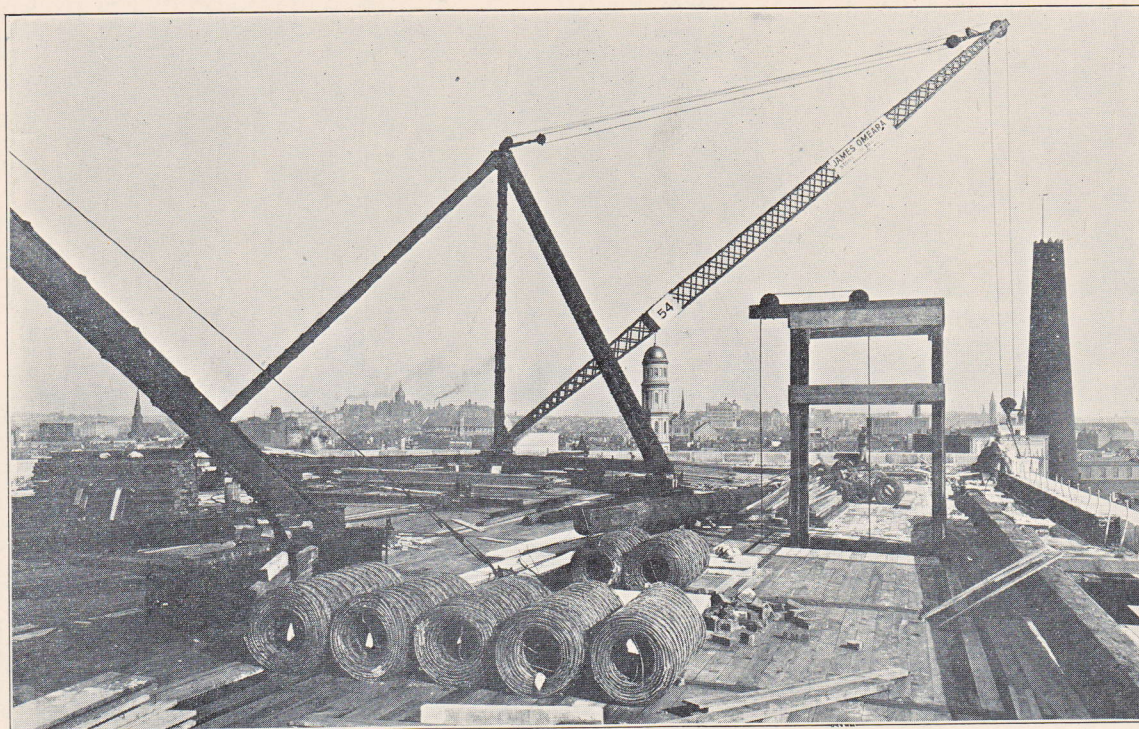
Two Five-Ton Bedford Stiff Leg Steel Erection Derricks, 40' mast, 90' boom.  
Used in erection work on Lincoln Memorial Building, Baltimore, Maryland. James O'Meara, cut stone contractor.



Five-Ton Bedford Stiff Leg Derrick, 40' mast, 60' boom, used in construction work.



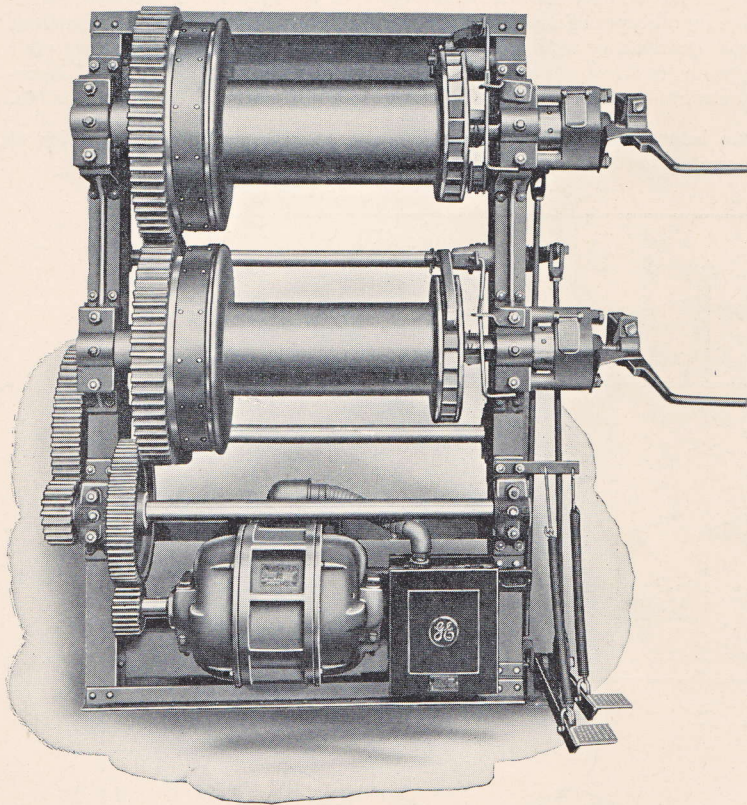
280' 0" of 35-ton Crane Runway, 35-ton Crane, 70' 0" span, and six Bents of Lean-to for Gang Saws furnished Sare-Hoadley Stone Company, Bloomington, Indiana.



Five-Ton Bedford Stiff Leg Steel Derrick, 40' mast, 90' boom.  
Built for James O'Meara, cut stone contractor, Baltimore, Maryland.

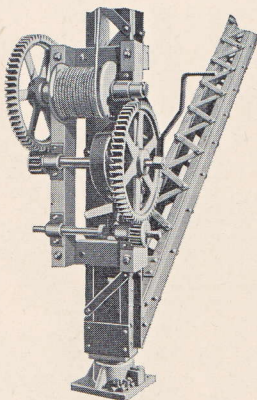


## Electric Winches

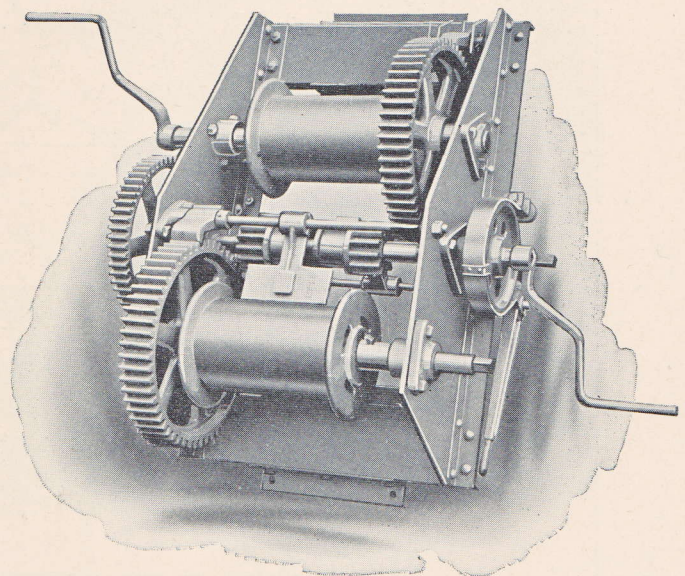


Double Drum Motor-Driven Winch, for use with either Stiff Leg or Guy Type Derrick, to be mounted at the base of mast. Made in any capacity up to 10 tons.

## Bedford Hand Winch



Single Drum Hand Winch, mounted on base of Derrick Mast.  
Boom arranged for a fixed radius.

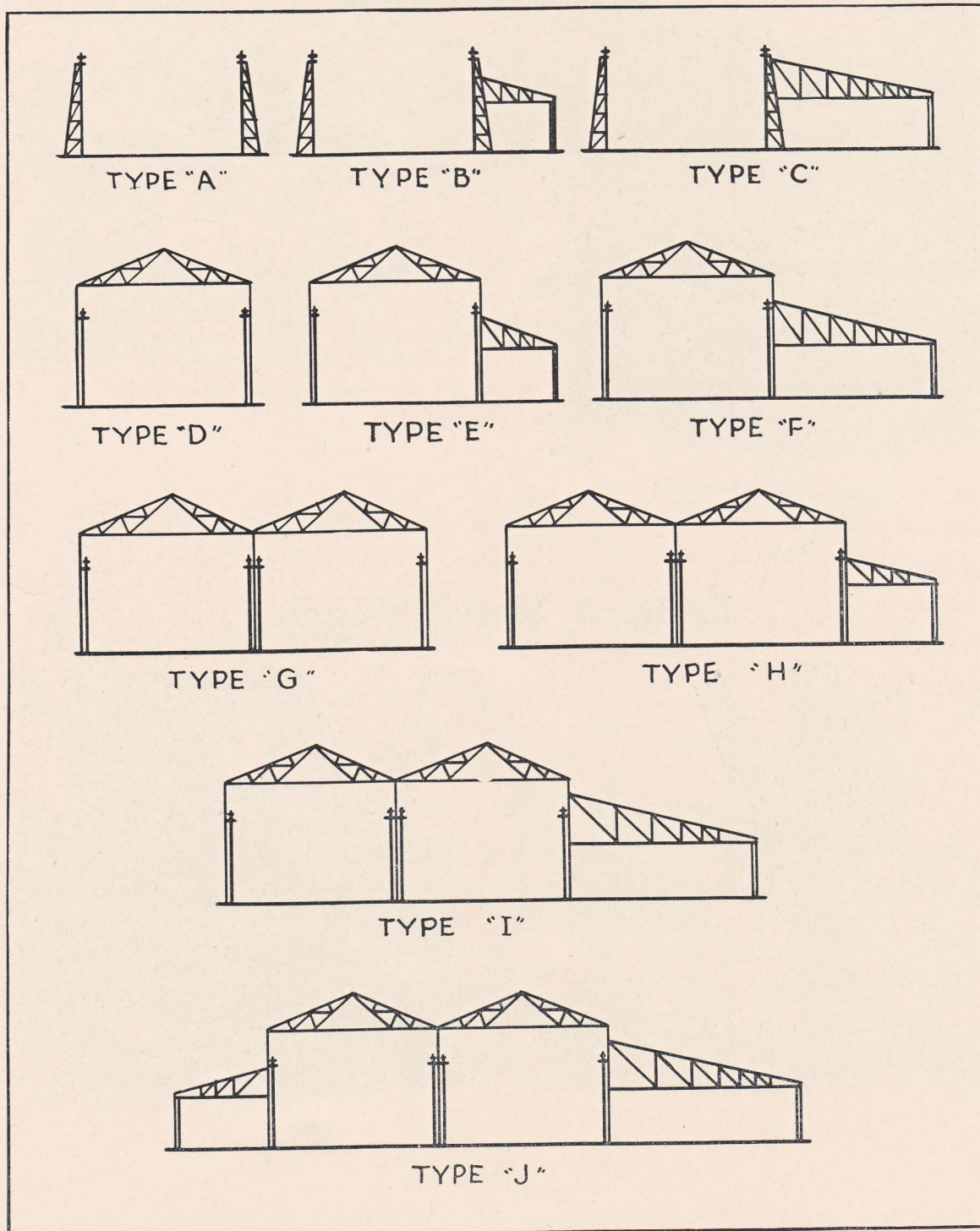




## Structural Steel Buildings

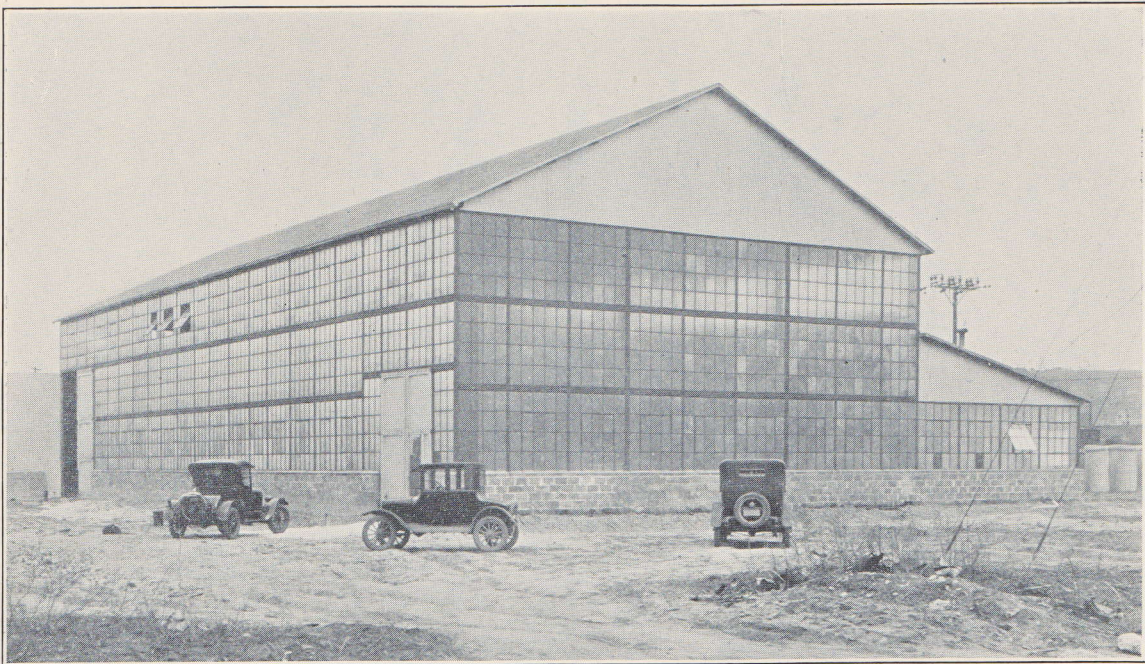
On the next few pages we show only a few Structural Buildings that we have fabricated and erected. We maintain a complete Structural Department, having designing engineers capable of designing all types of structural steel for buildings, and welcome the privilege and opportunity to submit our quotation on your plans and specifications, or would be very glad to design your building to meet your actual requirements and quote accordingly. Our facilities for producing structural steel are the best, having the latest method of labor-saving machinery, carrying in stock approximately 800 tons of structural steel and with an output of approximately 600 tons per month.

We refer you to the etching below lettered; and if you are interested in any of these types, advise us the length, capacity of crane, and height. We would be very glad to submit you quotations to suit your requirements.

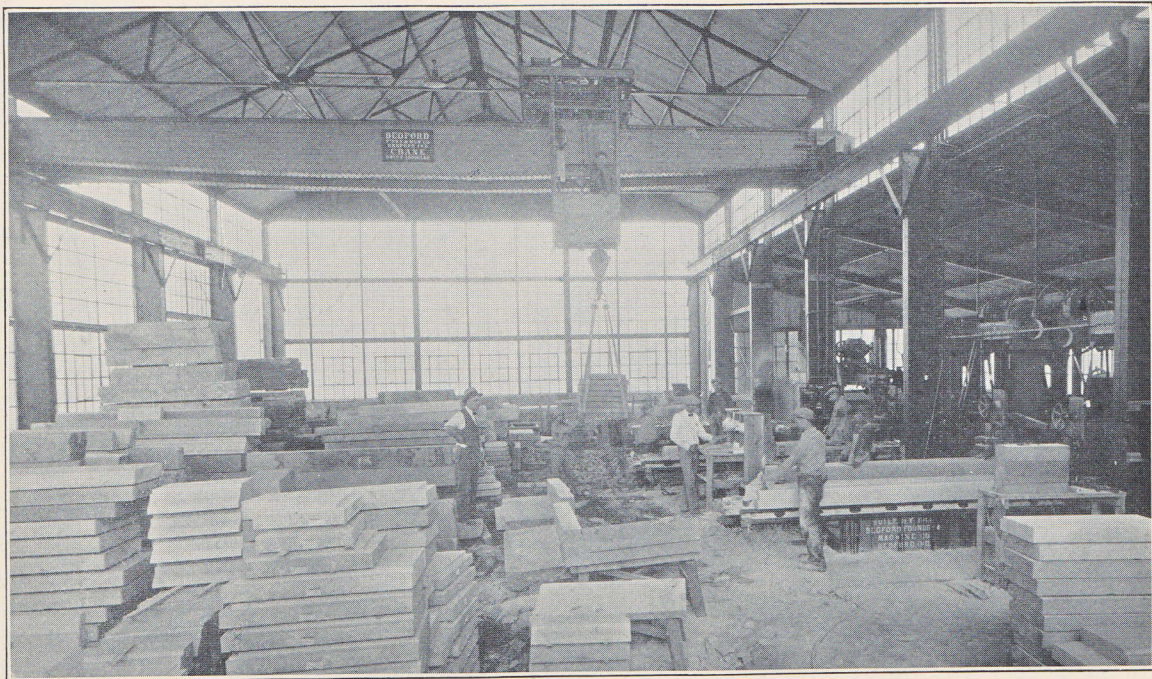




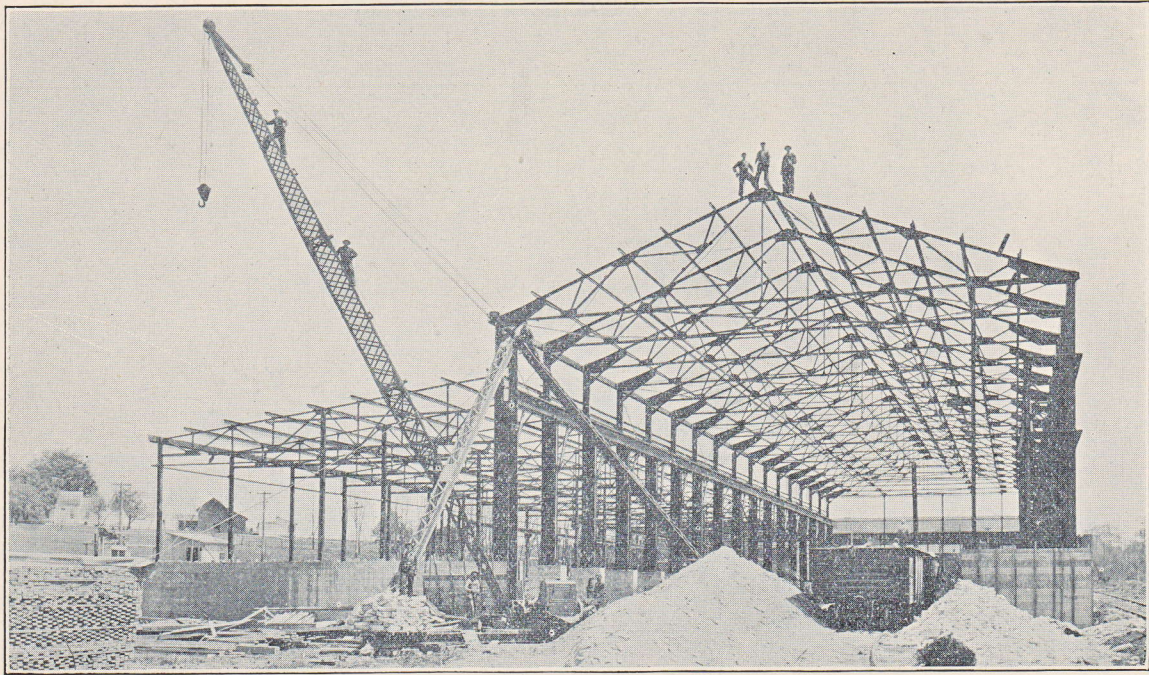
## Stone Mill Buildings



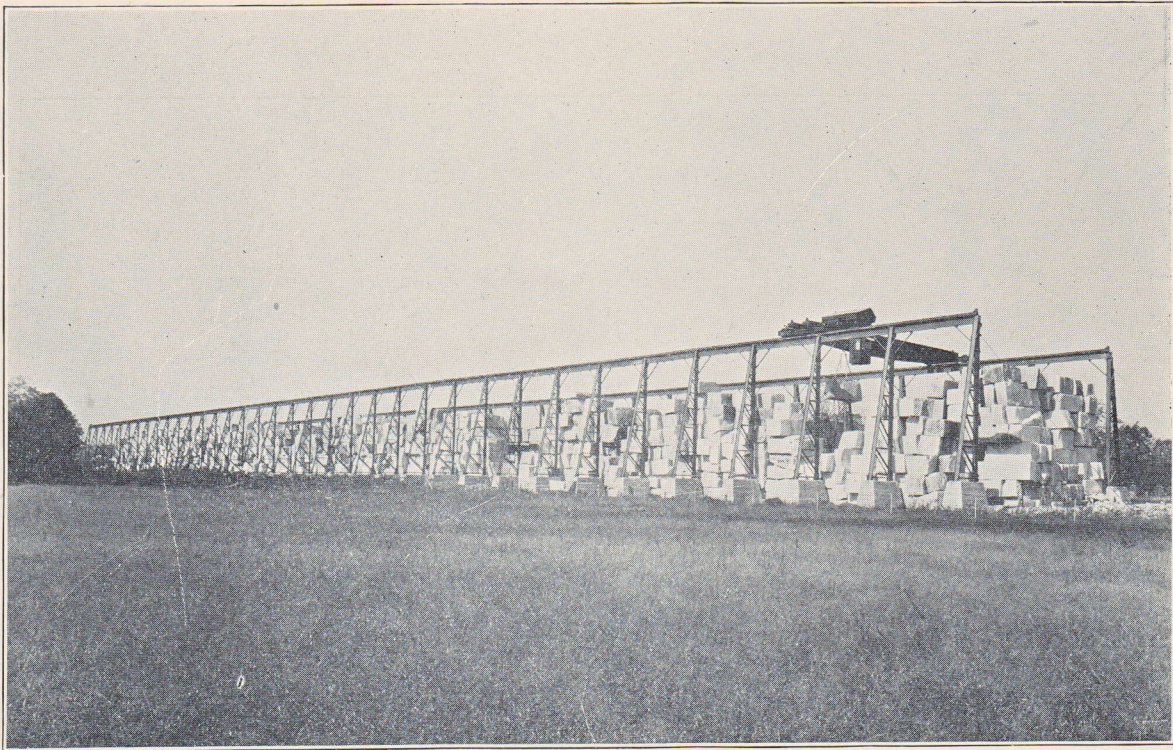
Mill Building furnished the Kansas City Cut Stone Company, Kansas City, Kansas.



Interior view Mill Building furnished the Kansas City Cut Stone Company, Kansas City, Kansas.



15-ton, 90' 0" boom Steel Stiff Leg Derrick used in the erection of Monon Stone Company, Bloomington, Indiana.  
Structural Steel also furnished by us.



Shawnee Stone Company at Bloomington, Indiana.

700' of 30-ton Crane Runway 35' high used for stacking quarry block stone, and a Bedford 30-ton, 70' span, 2-motor Electric Traveling Crane. 800 cars of stone can be stacked under this runway.



